

# MASSACHUSETTS PLOUGHMAN

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NEW ENGLAND

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Correspondence from practical farmers, giving the results of their experience, is solicited. Letters should be signed with the writer's real name, in full, which will be printed or not, as the writer may wish.  
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### Visit to the Gypsy Moth District.

An inspection of a part of the district infested by the gypsy moth was made last week Thursday by Massachusetts State officials and others, including Secretary Ellsworth of the State board of agriculture, James M. Danforth of Lynnfield, John G. Avery of Spencer, Augustus Pratt of North Middleboro, C. D. Richardson of West Brookfield and Representative Warren C. Jewett of Worcester, members of the gypsy moth committee of the board; Representative Ladd of Sturbridge, master of the State Grange; Dr. Austin Peters of the cattle bureau, Charles A. Dennen of Pepperell, one of the inspectors of the bureau, and others. Prof. A. H. Kirkland of Reading, formerly entomologist for the gypsy moth work, was the guide of the party. The members of the board made the inspection in order to present the case in their next annual report.

Malden was visited first, then East Malden, and the territory near the poor farm, then eastern and southern Melrose, then the party came back to Malden for dinner. In the afternoon the inspection included a part of the Middlesex Fells reservation, a view of the estate of Gen. Samuel C. Lawrence in Medford, close by the rifle range of Company E. of the Fifth Regiment, and a drive into Arlington. Very soon after leaving Malden station the bare trees, as in the illustration, showed where the caterpillars were busy. In nearly every case the situation is worse than last year. The city of Malden has appropriated \$325 for the care of public places. For mile after mile the trees drooped, and at frequent intervals were areas of several acres, sometimes estimated to be as large as fifty, where the caterpillars had stripped the trees completely, or had destroyed their foliage.

All kinds of trees are attacked by the caterpillars. Street Commissioner Stiles of Malden, who last year offered ten cents a quart for caterpillars, and had to pay for over forty barrels at that rate, is not duplicating that offer from his private pocket this season. Not over ten per cent. of the infested territory, it is estimated, is being treated this year. Many property owners are spending from \$40 to \$60 each on their places to have burlaps put on, and for the destruction of the pest. B. F. Dutton of the firm of Houghton & Dutton of Boston is spending some \$200 this year to destroy the pest, against about \$400 last year. But what is done in the residential district, though it has held the pest in check, and even improved some places which were badly infested last year, does not amount to much, compared with the large areas of infested woodland.

At Lynnfield Mass a strip of woodland half a mile long and from ten to twenty rods in width was completely defoliated and left as bare and brown as if scorched by fire. Near the poor farm at Melrose some ten acres of second-growth oak were absolutely stripped of foliage; the trees are never more destitute of leaves in mid-winter than they were in the middle of July.

In the rear of the Oak Grove station at Malden, a plot of old oak growth, containing perhaps half an acre, was stripped (as shown in the illustration from photograph made by the Massachusetts Committee on Gypsy Moth). From the trees overhanging the street the caterpillars dropped in such numbers, that passers-by were obliged to raise umbrellas to protect their persons. Over the doors and in the cornices of the station the caterpillars literally hung in festoons. At Baker's Hill, Malden, the swarming insects massed on house walls obscured the color of the paint and made all a uniform dark brown.

Serious outbreaks also occurred at Arlington, Belmont and Watertown, and to a smaller degree at Lexington, Woburn and Lynn. During a day's drive through the infested territory early in July the committee saw all told at least one hundred acres of woodland practically defoliated by the moth.

The encouraging feature of recent date is the rapid increase of insects which prey upon both kinds of moths. The adversaries of the two moths are known as the parasitic wasps, an insect common in France and Germany, and another called the trichogramma, the latter being a species of the chalcid fly.

The mantis was introduced at Rochester, N. Y., where it is said to have been successful in exterminating moth pests. Its introduction came about accidentally, much the same as the gypsy moth came here. A local nurseryman first noticed the insect on an importation of shrubbery, and he followed its habits, closely confined, until convinced that it was a blessing, when he encouraged its propagation.

The insect's special fondness is said to be for the eggs of the noxious caterpillars, and its capacity almost unbounded. Not the least important in connection with the chalcid fly is the fact that an entire generation requires only eight days in which to complete its cycle.

The only question which might be raised is in regard to what tastes either of these insects may develop after exterminating the gypsy and brown-tail pests. Entomologists favor a great deal of caution in encouraging any new worms of this kind of life.

### The Good Points of Summer Silos.

There is much that might be said in favor of summer silos. Undoubtedly the invested capital is somewhat greater where provision is made for ensiling a sufficient quantity of forage to supply the dairy herd

means, even though themselves ignorant of practical farming, are able to secure competent helpers and so are successful.

But many others, with neither money to lavish freely nor wit nor energy to expend upon their enterprise, are making dismal failures; are vacating their leases or selling at great sacrifice the country homes into which they entered with such high hopes. A little knowledge of real estate transactions in any town or city shows this to be a common occurrence annually. It's a great pity, for many of these people are estimable in many ways, and to such may we address a few suggestions growing out of personal experience and a wide observation.

The mistakes these men make may be only few in number, but they are vital and often fatal. One blunder is to suppose that they know all about it, or nearly so; just a little coaching now and then and

### Big Hay Crops at Rhode Island Station.

Some interesting experiments have been made this year at the State experiment station at Kingston. The yields of hay show very important results. One of the problems that has been worked out is an attempt to determine the difference in yield on a field when clover is used in rotation and when it is not. On other plots experiments are being made to determine the relative worth of sulphate of ammonia and nitrate of soda as sources of nitrogen. The fields were fertilized the same with acid phosphate and muriate of potash. An equivalent of fifty-four pounds of nitrogen in the form of nitrate of soda was applied to one and an equivalent of the same number of pounds to the other in the form of sulphate of ammonia. The yield of the plot upon which sulphate of ammonia was used was three tons per acre; that of the other plot

the right quantity to use. It doesn't usually cost, however, more than about one-quarter as much as clover, so the heavy seeding is not expensive. It should be sown when the ground gets warm, but not before. We sowed a week or two after corn-planting time. The ground should be made very fine, as the seeds are small, and seed broadcasted and covered with a weeder, or light harrow. Where surface will not crust after a rain I would roll at once. The seeds come up better. If there is danger of a crust forming, which it is hard for little plants to get up through, you can roll after the crop is up two or three inches high. This will make surface smooth for the mower. Except on light, loose soils one-half inch is deep enough to cover the seeds. If you want good hay, mow when the heads come up and blossoms appear. You can see these early in the morning when the dew is

### Advantages of the Farm Poultryman.

A farm is the best place for solid, lasting success in any branch of the poultry business. Plenty of room on cheap land favors a combination of low cost with natural conditions.

The trouble with crowded conditions is that too much money is usually put into houses and fences, and the stock being more or less in confinement loses some of its vigor after a few years. Thus while the growers in close quarters may show fine records for a while, and on a small scale, the same methods are likely to fail if applied to large establishments for a long time. Most of the men who are making a living from business poultry-keeping have plenty of land in a good location and have reduced cost of equipment and labor pretty close to bottom limit.

Those who have a large trade in pure-bred stock are not obliged to consider cost so closely, but they often find their eggs hatching poorly and chicks feeble and hard to raise, until they get relief by hiring some farmer to raise them where there are no patent coops, ventilators and elaborate seed mixtures, but instead, plenty of grass, insects, fruit and milk, together with the ceaseless running about needed for growing animals.

Nobody can compete with farmers who really understand the business. Too many of them consider chickens hardly worth much notice. And those who have the knowledge and disposition to give them decent attention can produce them at lowest cost, at the same time increasing the vigor of the stock instead of running it down. To learn to be a good poultryman, offers one of the best openings for a young farmer whose tastes lead in this direction.

### Holsteins in Great Demand.

It may be of interest to your readers to know that the Holstein-Friesian cattle are in good demand and are gaining in popularity in foreign countries. Two shipments have been recently made to South Africa, and have another large shipment to make within a short time. We have made two or three shipments to South America and one to Mexico, and just now have several other inquiries.

We have also made good sales in the States, among others, a fine herd of cows to the International Railway Company, to put upon their farm on Lake Ontario, where they are establishing a very fine summer resort for the people of Buffalo, Lockport, Niagara Falls, Albion, etc. We have recently shipped a very fine bull to the National Military Home of Ohio, and made some shipments to Pennsylvania, Connecticut, eastern New York, etc. Indications point to a very favorable season for Holstein-Friesian breeders.

SMITH & POWELL COMPANY.  
Syracuse, N. Y.

### Troubles of a Chestnut Grower.

The grove was started by grafting Paragon on the one-year-old sprouts of common American chestnut that had grown up after the original trees had been cleared away. The grafting was a success, as nearly all the seedlings grew and made fine, stocky trees which began bearing the second year after grafting. Where they stood too close they were thinned out from time to time, preference being given to the most vigorous trees.

The grove contains about thirty acres and bore annually, increasing in quantity until 1899, when the entire yield was some 220 bushels, about one-fourth of which were worthless on account of the weevil. In the year 1900 the fire destroyed it and only about ten bushels were gathered, fully fifty per cent. of which were wormy. The land upon which the grove is located is on a hillside, rough, rocky and useless for farming or any purpose except timber, and, notwithstanding it is comparatively barren and in spots well-nigh inaccessible, the trees were making a fine growth until destroyed.

It is surrounded on three sides by forest, mostly of chestnut timber, and to this I attribute the great destruction of nuts by the weevil. While at first the loss was small, only five to ten per cent., it has increased annually, and the outlook for profitable crops in the future is not encouraging. On trees which are isolated and growing about the buildings on my father's farm the nuts are finer and there is a small percentage of loss.

In my opinion the only successful method of growing chestnuts is to plant them in orchards away from the wild forests, give them cultivation and attention, and as far as possible destroy all wormy nuts as they fall to the ground. Grown in this way they will bear almost annual crops and yield a fair profit.

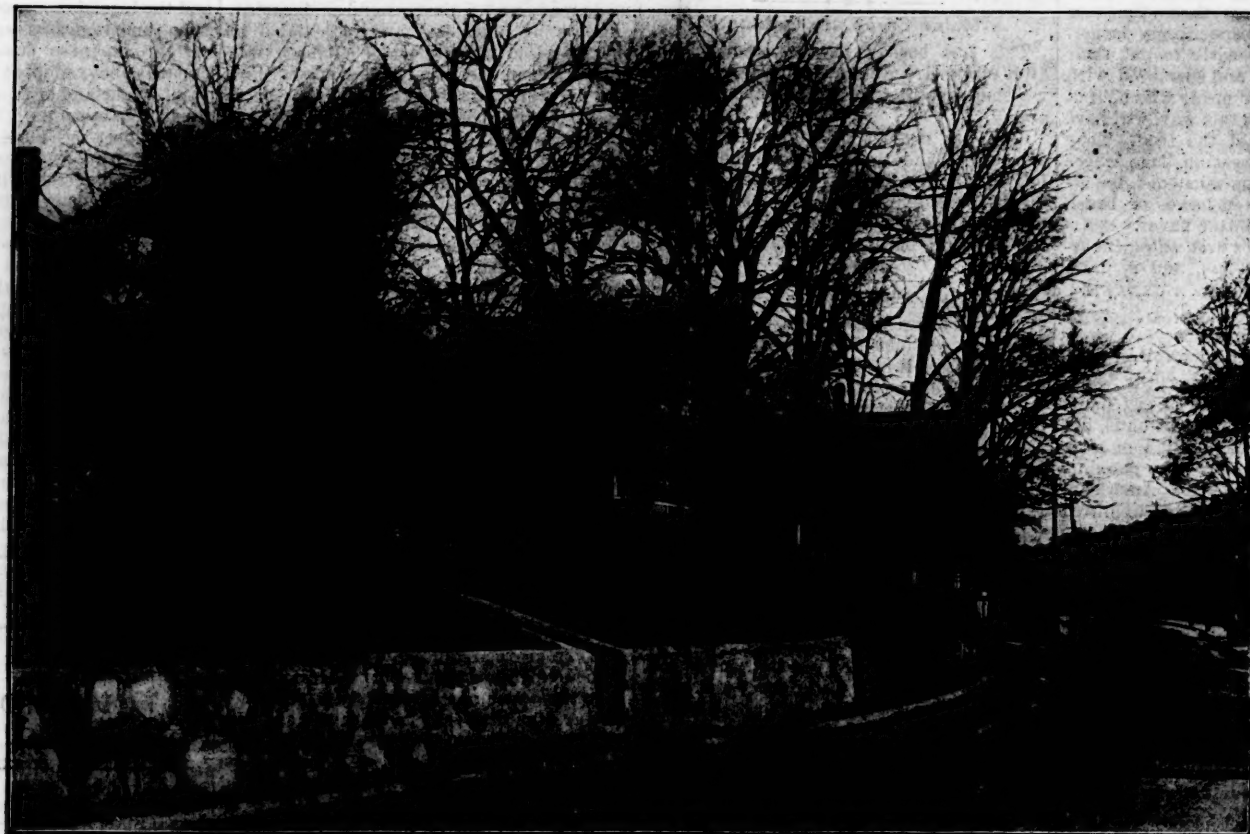
E. B. ENGLE.  
Waynesboro, Pa.

### Getting and Keeping.

The thing is to hold to what you have and make it improve and not lose what you already have. The hard-working farmer (in fair circumstances; not poor, not rich) has a boy he thinks is fairly good. He wants to go to college or start in business; the father has not enough money past him to do this. In consequence, he mortgages his farm, borrows the money, not for a moment doubting but what his son will pay it back in the near future.

The boy gets through, graduates with honor and stands in high society. He falls in love with a beautiful society lady, gets married. He needs more money. Where does he send for or get it? He sends back to the farm. In consequence, the farm is mortgaged, and the rest of the family drudge the rest of their lives to pay off the mortgage. Better a thousand times let the boy make his own way, and hold to what you have.

McVeytown, Pa.



TREES AT MALDEN, MASS., IN JULY, STRIPPED BY GYPSY MOTHS.

through the summer. Perhaps the summer silo will even cost more for a given capacity than will a winter one, inasmuch as summer feeding takes cognizance both of the lessened appetites of the cows and the greater rapidity of fermentation. It becomes necessary, therefore, for summer feeding to materially reduce the surface area from which silage is fed. One should so limit the surface area for summer feeding that 18 inches will be easily removed when the cow's appetite for silage is lightest, and that the average feed will remove about two inches. If this is not done, not only will there be a waste of fodder, owing to excessive fermentation, but the quality of the whole feed deteriorates, even to a point of imparting undesirable flavors to the milk.

Summer silage has a great advantage over green silaging crops in the cost of production. With a heavy-yielding silage crop like Indian corn, allowed to mature and reach its maximum growth and handled in a wholesale way by improved appliances, not only is the expense per feeding unit much less than in silaging crops, but the acre product is brought up close to the limit, and the rental for land is thereby raised.

Summer silage appears to have another marked advantage over green forage, in its uniform supply and quality. Properly cured silage from ripe corn is very uniform in quality, and its use favors a very regular and uniform milk flow. This is not a preconceived notion of "book farmers," but has been substantiated by experience. On the other hand, green crops are not only fed at a considerable expense for labor, but they fluctuate in supply and vary greatly in quality. One part of a field may be infested by weeds not relished by cows, which when fed cause a marked shrinkage in milk. Seasons vary, the weather is bad, it is inconvenient to take time for getting in green feed, and other reasons work against its practical value.

The use of silage in summer is an approach to perennial winter feeding, a practice that is growing more and more common, but which needs no exposition in this paper. That pastures have grown poorer in many sections appears to be a common opinion. Their uncertainty and irregularity of production are largely responsible for the demand of this discussion.

PROF. F. S. COOLEY.

### From City to Farm.

It is common of late years for city people to desire experimenting with a farm. In some instances men do not well succeed in the store, office or factory, and think to better themselves on a farm. In other cases it is a matter of health. A change must be made, and the physician says, "get outdoor work."

No matter for what reason, in every farming community will be found one or more families fresh from professional, commercial or manufacturing life trying to gain a livelihood directly from mother earth. Some by previous knowledge or by quick adaptation to their new conditions are succeeding in their venture. Others of large

they will soon become lords of their domains. This is sheer folly. No work on earth needs better brains, tact and patience than farming, and they who possess these qualities in large degree are all the surer that they have much to learn and little enough time to learn it. The notion that any old time or any old way is good enough for the farm, will never do; the very best time and way are required to learn nature's secrets, and to adapt oneself to her moods and passions. She will surely resent any trifling with her laws, and will execute speedy vengeance upon all bunglers in her laboratory.

Another mistake is to suppose that one can carry town habits to the farm. Most city men are late risers, having only their breakfast to attend to before going to their work. On the farm the inexorable law is, up with the sun, see that the cows are milked and turned to pasture in the cool of the morning. Attend to all other chores, take a look into the garden with at least a few turns of the hoe, or any other needed task. Then breakfast, not later than seven o'clock, and to the fields for the day at once. If this seems strenuous, then so be it. The farm alphabet begins with early rising, and if it is not learned and at once, no average man will be likely to succeed in the calling.

To secure a crop of vegetables or cereals, certain indelible conditions must be fulfilled. Must be, not may or may not be, as in some other kinds of work. There is a specified time for sowing the seed, a set time for cultivation, an unyielding law of procedure all the way. Not a day nor an hour should pass unheeded of duty. Quick movements, close observation of every detail, unflinching toil and patience, these are essential to success. The "ten hour" a day slogan, the "noon hour" of rest shibboleth, or any other similar notion previously entertained must be flung to the winds. The things that need to be done, and the exact time they need to be done, make all the law of action a farmer ever needs.

If for any reason, either of common shiftness, slow, poky motions, a conceit of ignorance, or other supilities, the would-be farmer fails at the end of the first year of his attempt, he has usually only himself to blame. To say that the season was poor, or the farm was unsuitable, or somebody else was to blame is often only a pretext, not a reason. The real and only reason is that the man could not or would not learn how to do his work, and so there is a wretched failure.

Does this seem a harsh and discouraging judgment upon the amateur farmer, then be it known that to the man who will conform to the edicts of nature, will delight in her mandates, and gladly follow whither she leads, no more pleasant or profitable employment ever lent itself to his desire. To such a man the farm will be a paradise. The real and only reason is that the man could not or would not learn how to do his work, and so there is a wretched failure.

G. A. S.

was 3½ tons per acre. The difference in the cost was seventy cents, and the difference in the yield was one-half ton.

What is possible in the raising of hay in this State is clearly shown on a field of twenty-five acres on the farm of the experiment station. This is entirely separate from the work of the station and has been carried for as any good farm should be. The yield this year will be approximately three tons to the acre. This is the second year that the field has been cut. Eight years ago the college had eight horses and four head of cattle and was compelled to buy hay. Now eleven horses and twenty-six head of cattle are fed throughout the year, and the farm usually has from ten to twenty tons of hay to spare.

W. E. STONE.

### The Outlook More Promising.

A wonderful change on the face of nature has occurred since June 10. From that time we have had heavy rains (one when four inches or over fell) and frequent showers, and into parched fields and stunted dying crops there came new life, and a growth which no one could have anticipated or believed possible. Corn is now growing very fast though rather low for the season. Potatoes are in full blossom, with strong, healthy vines, and promise a good crop. Onions are heading out well with a fine stand of straw.

Haying is well under way and promises a fair average yield. In this part of Kennebec County I am confident that more than seventy-five per cent. of a full crop will be harvested. The weather of late has been rather unfavorable for curing and harvesting this important crop, but we are looking for better weather and more sunshine soon. The apple crop in Kennebec County will generally be light though some orchards promise well. The gardens now furnish an abundant supply of vegetables.

Hallowell, Me.

### Terry on Hungarian.

A Canadian farmer, J. Buchanan, Flesherton, Ont., writes as follows: "What is the yield of the Hungarian grass crop? How do you seed and care for it? How does it compare with corn for economical fodder production where the season is rather short for corn? Corn is liable to get frozen here before maturity."

T. B. Terry replies, through the Practical Farmer, as follows:

"On good land we can grow about three tons of Hungarian hay per acre, weighed as it is brought in the barn. When dried out in the mow, of course it would not weigh as much. I have seen crops in the North, nearly in your latitude, on poor land, that were hardly worth cutting. It takes good land to produce three tons per acre. Hungarian is a warm-weather crop, like corn, but it will grow in less time. Sixty days of warm weather will make a crop, if there is rain enough to start it promptly. As it grows so quickly you can see that it wants fertile land to produce a large crop. It needs all its fertility in a short time.

"The seeds are about the same size as red clover seeds and three pecks per acre about

on. Cut at this time and nicely cured, it makes fine cow hay, for one feed a day, say. I write from long experience. I have fifteen tons of it this season.

"It needs more curing than ripe timothy would, but not much more than timothy cut in blossom. It will not bleach and damage lying in dew as quickly as other hay. A very good way is to mow in the afternoon, let it lie all next day untouched, rake and cut the following day as soon as dew is off, then draw in from cock during the next day or two, while the sun is hot. If you have a tedder you may shake it up and cure and cook it the day after it is cut, if the weather is very warm. Of course, this plan is for a heavy crop; a thin, light one would cure quicker.

"When I have been in Maine I have found farmers very friendly to Hungarian. As I remember the Secretary of the Board of Agriculture said it was a close second to the corn crop with them. You cannot grow as much value of seed per acre as you can with corn, when corn matures. But corn takes more work than Hungarian grass, as you can readily see. If one has land enough he can raise a given amount of feed about as cheaply growing Hungarian, probably, as he could with corn. Then he can cut it during hot weather, and put it under cover and that is the end of the job. He avoids the cultivation of the corn crop and the husking and risk from stalks standing so long to dry. The feed can be put in smaller compass in the barn. The crop can be put in later, giving more time for working land. It can be harvested quicker, where one wishes to follow with winter grain, as we do, and again, gives more time for tillage.

"But now let me give you a more careful idea of the feeding value of Hungarian hay. You know the protein in the feed is the main nutrient. A ton of Hungarian hay contains ninety pounds; a ton of timothy fifty-six; a ton of corn fodder (corn as fodder, not corn stalks), fifty; a ton of corn stover, stalks with ears removed, thirty-four pounds; a ton of corn grain, 158. You see a ton of corn grain per acre with the stover would have more than twice as much protein in it as a ton of Hungarian. I should hardly expect land producing but a ton of corn to bring two tons of hay. The land would probably bring the most nutrition in corn, but no great difference.

"This is not a fair comparison, however, exactly, as corn grain is a condensed food, and with the Hungarian hay you would have to feed more grain per ton than with corn and stover. Corn leads fairly where it does well. But your question is how Hungarian compares with corn for economical fodder production where there is danger of corn being injured by frost. Considering this risk, and the less cost of handling, and better chance for saving, and the chance to feed purchased grain to bring up the fertility of your land, Hungarian as a fodder crop will probably stand ahead of corn for you."

Go West, young man, and help harvest the crops. It's not so promising in the long run, but it's more immediate than growing up with the country.

W. P. A.



### To Improve Maine Butter.

We propose for a time to go to those people who are not sending a first-class quality of cream to our creameries and assist them if possible to locate their difficulty, and carry any ideas we may have gathered from others who have remedied just such conditions. We hope to get to the home of the dairyman, and if he desires any knowledge or advice we may possess we shall be glad to impart it.

It is our aim to do away with, so far as is possible, all the poor cream which is now coming to our factories and being made into a grade of butter which gives the State the unenviable reputation as a butter-producing State. While our interests are largely centered in the sweet cream business, yet we do not wish the consumer to believe we cannot produce butter second to none, when we are sure it is our peculiar condition which is the cause.

S. C. THOMPSON, II.  
Winterport, Me.

### Milk Goats for Profit.

A company is being formed in Malden, Mass., to establish a Maltese-goat milk dairy and sanitarium. It is composed of leading physicians, who want the milk as a remedy for mal-nutrition and pulmonary diseases, together with business men, who are in it for the profits. They intend to test it by purchasing goats enough to prove its merits.

The Maltese goat, like all others, is naturally a browser and not a grazer. He lives on leaves and branches, which die for want of nourishment, and converts waste and unproductive lands into fertile pastures. Mr. Cotton of Millbury, Mass., says that the increased value of the land pays all the cost of the keep of his flock. A gentleman reports the increased value of his six hundred acres of land by the use of a herd of goats as being ten cents an acre.

The average yield of milk in Zenith, Switzerland, is one gallon daily or three hundred gallons during the season. A common goat owned in Malden gives an average of two quarts daily. Twelve goats can be sustained upon the same amount of food as one cow. These twelve will give more milk than two average cows, and their milk is twice as rich in quality and the best known substitute for human milk. Upon this basis of feed compared with the yield, the Maltese is twice as profitable as a cow.

The yearly income in Europe is about \$30. Reports show that \$300 has been realized from fifteen goats in one season. There was also an increase of twenty-one kids worth \$100 more.

The increase will average 140 per cent. annually. Besides, the milk can be sold at double the price of cow's milk, or be diluted to an equal parity of value.

The Maltese goat has no offensive odor peculiar to the male common goat. The milk has no peculiar flavor. It resembles cow's milk both in taste and color, the only difference being that it is richer, thicker and slightly sweeter, containing a larger proportion of cream and sugar, and a less quantity of water. Used in coffee it is delicious, giving a rich, creamy appearance, equivalent to a teaspoonful of ordinary cream. When used for cakes it imparts a rich yellow color and lessens the number of eggs required.

The goat feeds on the same food, brush and weeds as the deer. His flesh is of the same nature, is superior to mutton, having the taste of venison.

The skin of the Maltese sells at forty cents to \$1 per pound, while Angoras are worth from twelve to fifteen cents. The most highly appreciated cheeses, which bring from thirty-five to sixty cents per pound, are all manufactured from Maltese goats.

The medical value of goat's milk is well known. There are infants, children, thin people, consumptives, dyspeptics and innumerable others in every community who will create a demand and furnish patrons for such goat dairies if well conducted. An eminent practitioner says: "Maltese goat



PURE BRED MALTESE GOAT.

Member of the new herd at Malden, Mass.

dairies will not only prove a distinct boom financially, but will be a powerful agent in lessening the present high rate of infant mortality and will lay the foundations of a stronger and more vigorous manhood and womanhood than can result from the kind of dietary now almost universal among the children of the poor."

The use of goat's milk in the United States has been comparatively unknown. Recently its medicinal and nutritive qualities in reference to consumptives, dyspeptics and other wasting diseases, as well as its superior nutrition for infants, have caused it not only to be recommended by efficient medical practitioners, but to be eagerly sought after by the army of invalids and delicate children.

The only reason that goat's milk is not prescribed by our physicians is because there is no supply attainable.

The quantity of food necessary to keep them in good condition varies according to the climate, but one-fourth pound of corn or its equivalent in other grain, and 12 pounds of hay at a ration is about a fair

**KITCHEN AND HAND SOAP.**

The Best. Cleans and Polishes Copper Brass Tin. Unequalled. Cleans and Restores all kinds of Paint.

For removing Tar, Pitch, Varnish, Grease, Paint, Blacking and all impurities from the hands it is unequalled, leaving the skin soft and smooth.

BEWARE OF IMITATIONS.

FOR SALE BY ALL GROCERS.

Chas. F. Davis & Co., Boston, Proprs.



MOTHS ON TWIN OAKS ON LAND OF GENERAL S. C. LAWRENCE, MEDFORD, MASS.

Showing the gathering of only a few hours. Illustration by Medford Publishing Co. See descriptive article.

average. With abundant winter pasture this ration once a day (in the evening) is sufficient; if the pasture is scant, they ought to have it both morning and evening, and on wet, cold days, when they are kept in the sheds all day, feed them three times or make their rations correspondingly larger. They should be taught early to eat their hay chopped, moistened and sprinkled with bran, oil meal or corn meal, which, if it digests easier if given in this way, will save about twenty per cent. of the feed. They should also be taught to eat ensilage where practicable. Milk goats must not be allowed to feed too much on leaves or brush or the milk may have a bitter flavor.

The Malden company's first shipment arrived last week from Texas, and is pure-bred milk goats. J. E. BURBANK, Massachusetts.

### Strength of an Egg Shell.

"Most people are aware," says the Scientific American, "of the power of egg-shells to resist external pressure on the ends, but not many would credit the results of tests recently made, which appear to be genuine, as recorded in the Scientific American. Eight ordinary hen's eggs were submitted to pressure applied externally all over the surface of the shell, and the breaking pressures varied between four hundred pounds and 475 pounds per square inch. With the stresses applied internally to twelve eggs, these gave way at pressures varying between thirty-two and sixty-five pounds per square inch. The pressure required to crush the eggs varied between forty pounds and seventy-five pounds. The average thickness of the shells was .012 of an inch.

### Bog Moss for Litter.

For several years the so-called "moss litter" taken from the British bog lands has been used as bedding for horses, large companies now rarely employing anything else. It is considered both economical and healthful. Compared with straw, its first cost is one-half or less, one ton of moss litter going twice as far, at least, as one ton of straw. Moss litter is claimed to be a natural disinfectant, deodorizer, etc. The overpowering odor emitted by straw bedding when a barn door is opened in the morning is entirely absent from moss litter. Drains in stables, another source of danger, may be hermetically sealed, it is asserted, where moss litter is used. Its absorbent quality is put at ten times its own weight in moisture. Moss litter is coming into use in many continental army stables, and is being advocated for the British army.

F. W. MARIN.

Censul, Nottingham, England.

### The New Farm School.

Experience is a most excellent teacher, but the tuition charges are usually very high, while the course of study lasts for a lifetime. For the purpose of aiding the farmer and fruit grower to fit himself in the shortest time possible to conduct his business to the best advantage, the University of Maine, at Orono, has recently established what may well be called a Farmers' Business College.

It is, in other words, a short, practical course in farming and fruit growing which any bright boy of fifteen may enter, and which will deal with the strictly practical every-day problems of farm life. The course may be taken for one or two years. It will open this fall, and I hope we may see large numbers of young men who are ready to avail themselves of the opportunity.

W. M. MUNSON.

Orono, Me.

### Harvest Seasons for Wheat.

July—New England, New York, Pennsylvania, Ohio, Indiana, Michigan, Illinois, Iowa, Wisconsin, southern Minnesota, Nebraska, upper Canada, Rumania, Bulgaria, Austria-Hungary, south of Russia, Germany, Switzerland, south of England.

August—Central and northern Minnesota, Dakota, Manitoba, lower Canada, Columbia, Belgium, Holland, Great Britain, Denmark, Poland, central Russia.

September and October—Scotland, Sweden, Norway, north of Russia. November—Peru, South Africa.

### Sheep Paid Best.

My sheep have gained, from start to feeding to finish, eight to ten pounds of mutton per bushel of corn, while the gain of my cattle of equal quality and feed runs from seven to eight pounds. And my hogs eat corn, corn first to last, and only a little grass for change, while my sheep eat grass, grass from first to last, and only a little corn to start lambs and finish them. That is the cheap feed versus high-priced feed.

The foregoing facts, obtained from my experience, convince me that the sheep are, in general, most profitable stock on a farm, especially on thin and high land; and in conclusion I will say: Keep none but the best of whatever breed you have. They will pay for themselves and keep you in an income that would not hold other stock, and are the

best weed destroyers we have on the farm. Taking all things into consideration, the sheep certainly has much to commend it to the farmer. JACOB ZIEGLER, Illinois.

### Maine Crops are Gaining.

This has been a peculiar season, but after all the drought and cold we have had we shall get pretty nearly an average crop of hay.

Corn has made a great growth the last two weeks, and the weeds are not much behind. Potato bugs are scarce. No haying has been done as yet, but I expect this week, if suitable, will see a large part of the hay in the barn. D. H. THING, Maine.

From experience I am satisfied that fertilizing and cultivation are the principal factors to produce first-class fruit, and on all apple trees it is safe to use stable manure freely, while on peaches the various commercial substances, potash, phosphoric acid and nitrate of soda, are preferable, and stable manure had better be used on other crops. It has been recommended in starting an apple orchard to plant alternate peach trees as fillers, while the apples are young, with a view of utilizing all the ground and produce several crops of peaches while waiting for the apple trees to mature. This practice, however, not to be recommended, because the same soil is not adapted to the successful growth of trees so different in nature. The apple thrives best in a rich, fine and deep soil, while the peach does better, on a coarser, light soil, not so rich in humus, and not necessarily so deep.—W. H. STOUT, Pennsylvania.

The various accounts of experience in chestnut culture remind the reader of the earlier days of orcharding and small fruits growing in America. Methods and results vary widely; failures more or less complete are quite numerous. Evidently there is much to be learned before chestnut groves or orchards will become a regular feature of business farming. But considerable progress has been made during the past few years.

Some of the Massachusetts towns and cities are wondering what they will find to do for their new State authorized police deer warden. This official is supposed to decide whether any case of damage to trees, vegetables and crops is caused by deer, and if so, to determine the amount of the loss, which, after considerable red tape, will be made good to the owner of the injured crop. In most localities the duties of the new officer will be no burdensome, while in other places a good deal of damage has been done to pastures and crops, and the new measure will afford welcome relief.

Some of the older State roads seem to have suffered considerable damage during the drought of early summer. The upper layers became, through wear and dry weather, as fine as dust and blew away, leaving the larger stones exposed and liable to loosen or "unravel." In Europe they prevent this wear in dry times by regularly watering the roads, and by looking after slight injuries as soon as noticed. Road builders in this country must learn that a road worth building is worth taking care of. It is neglect rather than lack of funds which has caused most of the serious damage.

Some of the newspapers which ought to know better have been telling readers how to steal rides on freight trains. Accidents among this class of travelers are very frequent; trains from East and West, or the reverse, sometimes carry scores of them. They are scraped off by low bridges, shaken off at curves, slid off by low roofs, eluded off by exasperated brakemen and slaughtered at countless smashups and derailments, after which their friends read of their inglorious end as so many "unknown tramps killed." When a young man feels restless and gets a touch of Western or Southern fever, the easiest way to travel is to go to work like a man and earn the price of a out-rail ticket.

### Literature.

"Oh Marjorie, my world's delight,  
Your yellow hair is angel-bright,  
I thought, and think, the sweetest sight  
Between the morning and the night  
Is just the sight of you."

The above verse, printed beneath the title "Marjorie" on the title-page of Justin Huntly McCarthy's latest book, is characteristic of the picture painted of the sweet-tempered, brave heroine of this adventure on the sea. Lancelot, her brother, is as knightly and courageous as the Sir Lancelot of King Arthur's court. The story is told in the first person by an intimate friend of Lancelot's, and consequently an ardent admirer of Marjorie. A Captain Amber has the idea of founding a kind of Utopia in a far corner of the world beneath the Southern Cross. He considered that the Old World was getting too evil and dangerous, and he believed that much

might be done for its people. The captain, a gentleman and scholar, was very confident of his schemes, and as Lancelot begged to accompany him, permission was at last given. The ship was made ready and a goodly number departed, anticipating much ease and little labor in the promised land. Cornelius Jensen was among the number who sailed in the ship, and he proved in the end to be the villain. He helped by the supplies and made himself very useful to the captain. When well out at sea with a mutiny brewing, an impending storm changed the crisis to one of wreckage and death. Happily the ship is wrecked near an island and a party of survivors, under Lancelot's command, succeed in making a landing. Rafts are constructed and an adjoining island is explored by some of the number who promised to return shortly. At this point in the story, Jensen, who is supposed to have been lost, appears with a lot of burly sailors. A sharp conflict ensues, in which Lancelot is at length the victor. Captain Amber also turns up after having been given up for lost. In attempting to rescue the passengers on the sinking ship, it was supposed that he had been swept away, but it appears that he had been picked up exhausted by a passing ship. The story is thus a sea tale, with the account of the experiences which come into the lives of few of us in the course of "life's fitful fever." Sound common sense pervades the story. Mr. McCarthy tells his tale from the standpoint of the youth who experiences his first real trials.

In the common type of sea adventure the dangers and escapes are the chief interest. In this book Mr. McCarthy succeeds admirably in arousing interest by his delineation of character. Marjorie is true to the creed of the Vikings of old. Not an uninteresting character is the beautiful Barbara Hatchett, who revenges both her husband and herself. What love interest there is consists in the boyish admiration of Marjorie by Lancelot's faithful friend, the narrator of the story. [New York: R. H. Russell. Price, \$1.50.]

The Indian girl in love forms the theme of Gen. Charles King's last novel, "A Daughter of the Sioux." The fair savage appears at a frontier fort under the guardianship of her aunt, and becomes the belle of all the society there. Miss Flower is the name she bears, and it seems appropriate to her petite figure daintily gowned in Parisian creations. No one rides so well as she, nor does any one dance as well. Lieutenant Field becomes her constant admirer, and as a result of his attention the heart of Esther Field aches over the turn of affairs. The story opens in the midst of activity. News of the Indians on the war-path has just been brought to the fort and immediately the soldiers are sent out. From that point in the story there is no lack of action, a characteristic which is not lacking in General King's virile stories. The author has skillfully combined love and Indian fighting in a way pleasing to his many readers. Miss Flower is a beautiful girl, and the author has given her a beautiful body. The fair savage appears at a frontier fort under the guardianship of her aunt, and becomes the belle of all the society there. Miss Flower is the name she bears, and it seems appropriate to her petite figure daintily gowned in Parisian creations. No one rides so well as she, nor does any one dance as well. Lieutenant Field becomes her constant admirer, and as a result of his attention the heart of Esther Field aches over the turn of affairs. The story opens in the midst of activity. News of the Indians on the war-path has just been brought to the fort and immediately the soldiers are sent out. From that point in the story there is no lack of action, a characteristic which is not lacking in General King's virile stories. The author has skillfully combined love and Indian fighting in a way pleasing to his many readers. Miss Flower is a beautiful girl, and the author has given her a beautiful body.

The next morning the men start out on the trail for the Indians, with Field under a cloud. This is one of the instances of the many ways in which the young woman makes use of Field and also her aunt and uncle. She not only lies and steals, but would even murder for the sake of her Indian lover, who in turn casts her off when she tires of her. The education and culture which she has acquired has not chilled the hot blood which flows in her veins, and after all her social advantages she is simply a daughter of the Sioux, and as such meets with a tragic end. General King writes with the bold coloring of characters and scenery which makes his books characteristic of life in the days of Indian warfare. For a story of frontier life, which is now so rapidly passing, even if it has not all but passed, we know of no more thoroughly entertaining writer. As one reads of the self-sacrifice of the men and the patient endurance of the women who lived apart from civilization, one cannot but appreciate the fidelity with which General King depicts his scenes and the sturdy characters which he introduces to us. So long as red blood flows in our veins we will turn from time to time to the vivid pictures of frontier life such as General King depicts for us. [New York: The Hobart Company. Price, \$1.50.]

This little story of certain conditions of life by some one who considers it best to conceal his or her identity is the sort of book which is intended for religious teaching. The problem dealt with is by no means unusual, but the solution is not what one expects. A minister who comes to a parish, apparently an unmarried man, with no kindred ties. But an intimate friend, the doctor, knows that the minister has a wife who left him for some one else. One day

the unconscious form of a woman, with a little girl in her arms, is found in the snow. She is taken in an almost dying condition to a nearby cottage, and on her person there is found a letter directed to the clergyman in question. The letter is taken to him and as soon as he sees the handwriting he recognizes it as that of his former wife's. He has the exhausted woman brought to his house, where she is doctored, where the child is cared for, and everything is done for the comfort of both. It appears that the woman, after leaving her husband, was deserted by the man who was the father of her child. After that she worked to obtain money enough to reach the minister, hoping to make it easy for him to obtain a divorce. Knowing that death might be at hand, she wrote the letter, requesting the minister to care for the child. A life of hardship and shame had brought the woman, tenderly reared, to the verge of death. Careful nursing restored the drained vitality, and the burden of life had to be resumed. The minister tells the facts in the case to the church committee, and awaits the decision. The vote is for him to remain, and some of the men of the church volunteer to meet the woman. The story ends happily, for the minister realizes that he had fallen, and that these drove his wife from him. No special literary ability is shown by the unknown writer of this book, and surely the plot is not marked by any great originality. Instead of being a well-rounded story we have a sort of monologue, in which the different characters simply preach the author's sermon on forgiveness. Thus, while excellent principles are set forth in the guise of a story, the story is lost in the sermon. Without vivid imagination or gifts as a writer, the author has, perhaps, done wisely to refrain from using even a pseudonym on the title page. This is obviously a book intended for circulation in those Sunday-schools where a moral lesson is required in every book placed on the shelves, regardless of its other virtues as a book. [New York: Thomas Whitaker. Price, \$1.00.]

For a pretty Japanese juvenile one better than "A Japanese Garland" could hardly have been selected. It is a story of flowers and the legends connected with them which have come to possess special significance in certain Japanese customs. It is Yone, a Japanese boy, adopted by an American, who paints a garland of flowers as a gift to his favorite playmate. The author, Florence Pelletier, portrays Yone, after presenting his gift, as being called upon to explain the legends connected with the various blossoms which comprise the garland. And the story was an interesting one, for the garland was composed of pine-needles and bamboo shoots, plum blossoms and peach blossoms, with lavender wistaria blossoms, the iris, with various markings, a peony of rose pink, the lotus, a gorgeous red chrysanthemum and maple leaves. Each has its interesting tale; the pine tree is associated with Yuki Damura, the bamboo tree is nicknamed Silver Mist, and the plum tree was the favorite of a Japanese emperor. Yone tells the various stories to his little American friends, of whom Marjorie Kent is the closest in his estimation. The language employed in writing the story is conversational, and it will be enjoyed by boys and girls generally. The fact that there are four illustrations by Genjiro Yeto adds to the attractiveness of the dainty volume. [Boston: Lothrop Publishing Company. Price, 75 cents net.]

### Notes and Queries.

THE HEART.—"R.S.": The human heart is practically a force pump, about six inches in length and four inches in diameter. It beats seventy times per minute, 4,200 times per hour, 100,800 times per day, 3,672,000 times per year, and 2,574,400 times in seventy years, which is "man's appointed three-score years and ten." At each of these beats it forces 2½ ounces of blood through the system, 175 ounces per minute, 650 pounds per hour, or 735 tons per day. All the blood in the body, which is about thirty pounds, passes through the heart every three minutes. This little organ pumps every day, without ceasing to lift 122 tons one foot high or one ton 122 feet high—that is, one ton to the top of a forty-story mill chimney, or sixteen persons severe each to the same height. During the seventy years of a man's life the marvelous little pump, without a single moment's rest, night or day, discharges the enormous quantity of 175,850 tons of blood.

THE HEIGHT OF MAN.—"T. D. K.": M. Munkner, a well-known French anthropologist, has recently shown that while the individuals vary in height, the average or mean height for the same people remains fairly constant. The lowest stature occurs among the Montbuts of Africa, the Negritos of the Philippines (Asia), the Caribs of Guiana and Venezuela (America), and the Lapps of Scandinavia (Europe). The Teuzeugas of eastern Java, the Jews of Russian Poland, the Balches of British Columbia, the Mozabites of Africa, and the natives of New Britain (Oceania), are not much taller. All these peoples are below the mean of 1.60 meters. Above this mean come the Abderdajani of Persia and Transcaucasia, the Kabards of the Caucasus (Europe), the negroes of the United States, the Maoris of New Zealand, and the Ottaw Indians. All these are below 1.70 meters. Finally, the very tallest people are the Cheyenne Indians of the United States, 1.745 meters; the Plains of the French Sudan, 1.741 meters; the Tagnans of Russian Turkestan, 1.719 meters; the Polynesians of the Marquesas Islands (Oceania), 1.745 meters, and, above all, the Scotch agricultural class of Galloway, 1.729 meters. The "tallest men," according to our authority, the Gallegians, while the tallest of the world, are not much taller. All these peoples are below the mean of 1.60 meters.

ALCOHOL AND INSANITY.—"E. V.": Dr. Robert Jones, medical superintendent of Claybury Lunatic Asylum, London, published a paper on a paper treating of drink with regard to the production of insanity. Referring to statistics bearing upon this matter, he said: "There are probably at the present time no less than 110,000 insane persons in England and Wales alone, of whom approximately about fifty thousand are males and sixty thousand females. If the Lunacy Commissioners' Blue Book for England and Wales be consulted, the proportion of insanity in which alcohol has been assigned as the cause of insanity to the yearly average number admitted into asylums in the five years 1898-1902, inclusive, is 21.8 for males and 3.5 for females—the proportion is much higher in Scotland—and after allowing for the deaths of those whose form of insanity is more immediately fatal than those caused by alcohol, there are, I believe, upon the lowest computation, remaining in asylums, at the present time, no less than 10,000 males and 800 females, who are mentally deranged through the effects of alcohol. During the time that the London County Council's Asylum at Claybury has been opened, from 1891 to the end of 1901, 1,000 males and 1,000 females have been admitted, of whom 21.2 per cent. of the males and 12.6 of the females were definitely ascertained to owe their insanity to drink, a total of over eight hundred men and 384 women who were thus rendered incapable of productive work through their own acts. For the whole of London, during the period of 1893-1901, 2,000 men and 1,600 women were received into asylums who owed their insanity to alcoholic intemperance."

IMPROVED WEATHER.—"F. M.": It would seem that we shall soon be able to prophesy accurately the general character of the weather many months in advance, by means of accumulating observations of the cycle activities of the sun's surface, etc. Professor Biglow of the United States Weather Bureau has recently demonstrated an intimate connection between the frequency of solar prominences and the cold waves, atmospheric pressures, temperatures, storm-tracks, movements in the United States and elsewhere. It has also been established by the British Royal Meteorological Society that in every district in the United Kingdom there is a definite tendency for the weather to be quieter twice a year; about the middle of each month. No scientific explanation has been given yet for this remarkable fact. Some observers in Australia have shown that well-marked seasonal changes occur as the moon passes from its northern to its southern course, and vice versa. From the records of the stations which have come down, the ancients seem to have known many of the laws governing the weather.

TIDAL POWER.—"Inquirer": The problem of how best to utilize the power of the tides has for every reason to hope that it will soon be solved. In the meantime we note the lecture upon this subject which Professor Hele Shaw has recently delivered at the Royal Institution in London. He points out that a necessary factor in the utilization of tidal power is a sufficiently large fall of water. Unless the fall is considerable, the cost of turbines and other appliances would entirely neutralize the advantages. At the present time the only practical scheme, which is actually in operation, is at Pwllheli, in the north of France. At this point there is a difference of twenty feet in tide level, and the water enters a triangular lagoon through an aperture at the apex of the triangle. When the water is full the opening is regulated by locks, and the power thus derived from the falling tide is sufficient to drive the water wheels. But even here it is not enough for electric lighting, and it has been necessary to supplement it by other means.

Gems of Thought.

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"There are many parables which I don't understand, but I understand what I do understand I find to be wholly above me and not below.—James Hinton.

"Now the basest thought possible concerning man is, that he has no spiritual nature; and the foolish misunderstanding of him possible is, that he has no soul, no nobility, no nobility. For his nature is nobly animal, nobly spiritual, coherently and irreversibly so; neither part of it may, at its peril, expel, despise or defy the other.—Ruskin.

"To hold fast upon God with one hand and open wide the other to your neighbor—that is religion.—George MacDonald.

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"Ignorance is the curse of God, Knowledge the wing wherewith we fly to heaven.—Shakespeare.

"He (Christ) is the word of whom every race of men were peritakers and those who live reasonably are Christians, even though they have been thought atheists, as among the Greeks, Socrates and Heraclitus and men like them.—Justin Martyr.

"It is something to have an influence on the fortunes of mankind; it is greatly more to have an influence on their intellects. Such is the difference between men of office and men of genius, between computed and uncomputed rank.—Lander.

"As you grow ready for it, somewhere or other you will find that what is useful for you is a book, or a friend, or best of all in your thoughts, the eternal thought speaking in your thought.—George MacDonald.

"The cause of civilization is always within. That which is external can never be more than an occasion which enables the cause to become operative. Eradicate the cause if you would gain tranquility.

"Sweet hope that cheers the heart bears company. And prove the cause of life.—Pindar.

"Know dear brother, that courtesy is one of the qualities of God Himself, who of His courtesy giveth His sun and His rain to the just and the unjust; and courtesy is the sister of charity, which quieteth heart and well proportioned, usually add chickens to their food resources without difficulty; but there are some large islands, like New Guinea, where the hen is not found, and more than half of Australia is destitute of this animal.

Manchuria is just twice the size of Japan.

The largest man in the world was recently found in Kuzjak, Russia, and his name is Deodor Machon. He is twenty-two years old and seven feet nine inches tall and well proportioned. He was discovered by a German scientist and taken to Berlin, where he is now creating a sensation.

In Chicago and New York, according to recent statistics, pneumonia has now superseded pulmonary tuberculosis as the cause of greatest mortality.

Statistics show that in 1902 the lynchings in the United States numbered sixty-six. Of the victims nineteen were accused of criminal assault and eleven of attempted criminal assault. The other forty-seven were charged with murder (thirty-seven), attempted murder (four), accessory to murder (three) and with offenses such as larceny, accessory to larceny, horse stealing, planning an elopement, "conjuring," making threats and ordinary assault. Of the ninety-six victims eighty-six were negroes, nine whites and one Indian.

Perhaps the most remarkable curious in the British-army system of red tape are the headings under which various personal necessities are classified. For instance, a soldier must purchase a brush and comb under the head of clothing, while a tooth brush for horse stabling, under a separate heading, is classified under the heading of "other necessaries." Referring to statistics bearing upon this matter, he said: "There are probably at the present time no less than 110,000 insane persons in England and Wales alone, of whom approximately about fifty thousand are males and sixty thousand females. If the Lunacy Commissioners' Blue Book for England and Wales be consulted, the proportion of insanity in which alcohol has been assigned as the cause of insanity to the yearly average number admitted into asylums in the five years 1898-1902, inclusive, is 21.8 for males and 3.5 for females—the proportion is much higher in Scotland—and after allowing for the deaths of those whose form of insanity is more immediately fatal than those caused by alcohol, there are, I believe, upon the lowest computation, remaining in asylums, at the present time, no less than 10,000 males and 800 females, who are mentally deranged through the effects of alcohol. During the time that the London County Council's Asylum at Claybury has been opened, from 1891 to the end of 1901, 1,000 males and 1,000 females have been admitted, of whom 21.2 per cent. of the males and 12.6 of the females were definitely ascertained to owe their insanity to drink, a total of over eight hundred men and 384 women who were thus rendered incapable of productive work through their own acts. For the whole of London, during the period of 1893-1901, 2,000 men and 1,600 women were received into asylums who owed their insanity to alcoholic intemperance."

The railways of the United States kill and injure each year more persons than were killed and injured on both sides during the Boer War, which lasted three years.

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## Poultry.

## Keeping Up the Flock.

The writer has distinctly in mind a particular everyday experience in the improvement of the flock of chickens. The effort consisted in setting a dozen Plymouth Rock eggs from a neighbor's vigorous flock, and saving all the pullets resulting the first year, besides nearly enough young roosters to "man" the barnyard. The old flock was Black Spanish, Brahma and Leghorn, and the feeding, that ordinary on the farm. The grown fowls were depended upon during the summer to forage rather thoroughly for themselves, and in the winter expected to thrive on a generous supply of grain, chiefly corn and water. Occasionally scraps were fed and very irregularly gravel and green stuff provided. There was no effort to induce continued winter laying. The old feeding was continued after the infusion of new blood. The general purpose effectiveness of the flock seemed to increase.

Now after twelve years, during which time the flock has not been affected by outside influences, it has quite thoroughly the Plymouth Rock (barred) characteristics as far as external appearances go. But it is not as good as it was shortly after the infusion of new blood; it is no better than the old stock of Brahmas, Leghorns and Black Spanish. The laying is very ordinary, and fatted fowls above three or four pounds, dressed, are a bit rare.

Looking for reasonable causes of the temporary improvement and final failure, we find the following important because of the commonness of the above experience: The stock which produced the first setting of Plymouth Rock eggs had for a good many generations received better than ordinary farm care. It had been exceedingly well fed and had therefore developed more than ordinary powers of food assimilation. It could, as a result, produce heavily in eggs and meat. On the farm on which the well-bred eggs were hatched, there was little feeding with regard to the special needs of the fowls. The excellent results in meat and eggs reported from pure-bred stock are due in part to the breed, but no less importantly to the care which pure-bred stock usually receive. For a short period, then, after the infusion of valuable blood, there is an improvement in the performance of the flock, due to the influence of the breeding. But this influence is not marked after a few generations, unless careful feeding and management are frequently introduced. Then there was no particularly careful attention paid to the choice of either hens or roosters for breeding purposes. Only by choosing the most powerful and useful specimens each year for propagation can any flock be improved. Very material care is needed to keep a flock from deteriorating, let alone trying to improve it.

However, the two chief reasons for failure of new blood infusions to permanently improve a flock are: that improvement in care does not always accompany the improvement in breed, and that the sires of the new breed become constantly less pure in blood.

ALLAN S. NEILSON.

## Recipe for Packing Eggs.

A receipt for keeping eggs, styled the "British system," has been quite extensively sold for \$1 a copy. It seems very doubtful whether the recipe mixture is any improvement over the common lime, salt and water mixture. Following are the directions complete for the benefit of those who wish to experiment with it.

Take forty gallons of water, and put into it twelve pounds fresh lime and six pounds common salt; stir it several times for a day, and it will be sufficiently dissolved to add the other ingredients.

Then take eight ounces cream tartar, eight ounces saltpetre, eight ounces baking soda, four ounces borax and two ounces hyper-lamphire, dissolve these all in one gallon hot water, and put them into the lime water. Stir once an hour for three or four hours, and the solution will be ready for use.

After candling your eggs, put those that are fresh and not cracked into the vessel you wish to preserve them in, stir up the solution in the barrel in which you made it (any clean barrel, tub or jar is all right for both solution and eggs), and dip out before it has settled enough solution to cover the eggs you wish to preserve; so the solution will be two inches deep over the eggs.

When the vessel is filled to within three or four inches of the top with eggs, place an old cloth over the eggs, tuck it in round the eggs, and cover the cloth with some of the lime settings that are in the barrel in which you made your solution; these settings will keep the solution the same strength at the top of the vessel that it is at the bottom. Do not let the cloth hang over the side of the vessel, or it will rot. Wash, and run the solution out of the vessel.

When ready to ship, take the eggs from the solution, put them in a basket, and dip the basket two or three times into a barrel of water, so to rinse off all the lime; then let the eggs dry, and as soon as perfectly dry they are ready to put in cases and ship as you would fresh eggs.

## Poultry or Pork.

A hen may be considered to consume one bushel of grain yearly, and lay ten dozen or fifteen pounds of eggs. This is equivalent to saying three and one-tenth pounds of corn will produce, when fed to a hen, five-sixths of a pound of eggs; but five-sixths of a pound of pork requires about five pounds of corn for its production. Taking into account the nutriment in each, and the

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comparative prices of the two on an average, the pork is about three times as costly a food as eggs. Therefore, it will pay better to feed waste milk to fowls than to pigs, if not enough for both.

MISS ANNIE HOLTZ.

Blair, Pa.

## Selling Pure-Bred Stock.

Your main hope for publicity must be printer's ink. Other things are good, but they do not go far enough. The one thing on which you can afford to be extravagant is advertising. It is an investment, not for this year alone, but for all time. You may over advertise this year and not be able to fill your orders. Nothing else makes you so sure of that man's order next year. He'll come earlier next time.

How advertise? Neat letter heads, envelopes and circulars count for something, but the poultry papers must be your main dependence. Select your medium by cultivating a intimate acquaintance in advance with the agricultural and poultry journals. Determine by the reading matter something of the character of the readers of each paper, and then decide which class of readers are most likely to buy what you have to sell.

Beaver, Pa.

T. E. ORR.

## Practical Poultry Points.

July, August and September are good months for canning. Full directions were given in the issue of May 30.

Even in large yards, where hens have been kept several years, insects are likely to be very scarce. Milk or beef scraps are needed all summer, and are necessary to keep chickens growing at full rate.

Ducks are a nuisance with the hens. Better keep them in a run by themselves fencing in a part of a brook or pond.

Most of the Rhode Island poultry farmers keep a dog trained to hunt rats, skunks and weasels. The bull-terrier is a favorite kind. The chicken hawks are occasionally raised or turned over, and if there are rats or nests underneath a smart dog will do the rest. The poultry-growing towns have cleared out most of the hawks by means of bounties.

The skunk families become very numerous and hungry about this time. Get the young chickens to use roosts as soon as they can fly. With the help of a slanting board they will soon learn to climb. Take down the board after dark.

For young chickens, the only safe way is to shut them up tight every night. During hot weather the slide which closes the coop should be of fine wire netting. The strong kind used for ash sifters is best.

A sitting hen in late summer is the most successful of house incubators. Without special care she will hatch a brood of pests that will kill most of her chickens, and perhaps overrun the premises. The regular Persian insect powder is the best preventative. Most of the patent mixtures do not amount to much. Dust the hen all over and two or three times. Never use an old nest in summer, and keep sitters out of the laying boxes.

## Horticultural.

## Rotation in Fruit Culture.

Here is a bit of important information worth giving. Some time ago, Mr. John Wright, at a fruit conference, mentioned that a fruit grower had planted an apple orchard, in one corner of which they had no success, and they could not understand the cause of the difficulty until an old man in the employment of the firm said he remembered, as a boy, there was an apple orchard in that corner before. I never lost sight of this fact, and when I reached Rochester, N. Y., which is pre-eminently a district for young fruit trees, I called on Mr. Barry, a member of the firm of Elwanger, R. Barry, and asked him, "Do you ever grow young apple trees on the same ground?" "Never," he replied; "there is not a bit of good ground all about Rochester for miles round, but what we have had apple trees on at one time. We always take fresh ground." In Australia I asked a fruit-grower, "What do you do when you have deaths or accidents to your apple trees—do you put other apple trees in?" The answer was, "No, we invariably plant stone fruit." The knowledge has either been acquired through long experience, or it has been found out, with the result that the practice is now common throughout the fruit-growing countries, not to plant apple trees where trees of this fruit have been before.

W. C. BARR.

## Orchards in Sod.

A feasible method for lands which are very steep and in danger of washing, or too rough, stony or stumpy to cultivate readily, is to grow grass, moving once, or better twice a year, and using the hay as a mulch about the trees. If this plan is adopted, special care should be exercised in preparing the soil. The holes should be large and the soil well pulverized and enriched before setting the trees.

Mulching has much the same effect as tillage and the cost is less. With proper pruning, spraying and fertilizing this method would prove successful on many lands which are now yielding the owners practically no returns.

PROF. R. L. WATTS.

Southern Level, Pa.

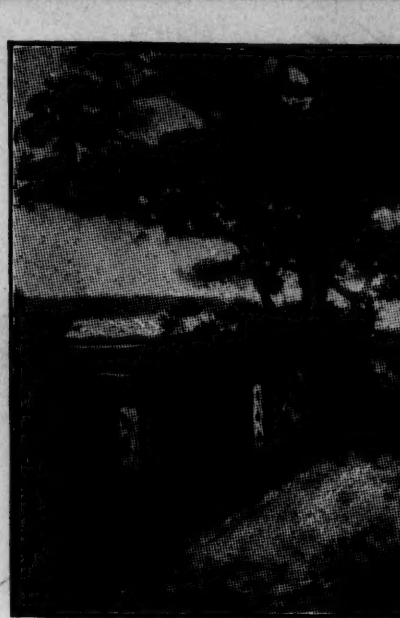
## Lessons from the Hay Field.

While haying, a good opportunity is afforded for studying the condition of the fields in order to find out what is most necessary to be done for their improvement. Take the most profitable rate of production may be maintained and the crops secured in an expeditious manner.

It will not take long to determine whether a field is producing a good paying crop or not, and if otherwise, why. On farms where a suitable rotation is followed, where the mowing fields of good tillable land are not kept more than three or four years in grass at a time, there should be an average yield of two tons of hay per acre, unless occasionally a season as the present comes along, when the best efforts of the farmer will not avail against the forces of nature, whether of long-continued drought or unseasonable rains or cold.

If a field has not been properly seeded the effect will be plainly visible in the appearance and extent of the crop. A good uniform growth in thickness and in height of grass of whatever kind is what the farmer likes to see and good to have, and this indicates a still condition of the soil, plenty of clean seed and carefulness in sowing.

Some men sow grass seeds evenly and well, while others will leave gaps and bare places. These look bad, and trying to make the matter better by sowing on more seed does not usually amount to much. Personally we find that a seeder for both grain and grass does excellent work in this line, and the crops of both are much more uniform than when sown by hand. A thick, even



THE ROAD TO THE RIVER.

growth of grass on all of the ground is one of the most desirable features of our meadows.

If a field will only produce a profitable yield of hay for three years before it is necessary to devote to other crops preparatory to a reseeded to grass, then the fact will become clearly evident in harvesting the crop, and a change should be made.

If a field, or part of one, is too wet to bear good crops of any kind, and the portion that is in this condition hinders the proper cultivation of the whole, then there will be no difficulty in determining the fact, and also that the remedy is in draining these wet places and thus putting them in condition to be properly worked and reasonably productive. There are many such fields where a sag will retain the water and seriously hinder and prevent work on the whole when it should be done.

Many of our farms are more or less stony, requiring much labor in ridding the fields of these obstructions to good cultivation and securing of the crops. If this work has not been properly done the fact will become pretty soon evident in mowing the grass, for if a stone that is a little difficult to remove has been left just for this time, the mowing-machine will be pretty apt to find it and forcibly notify the farmer of the mistake made in leaving these "pointed reminders" of work not properly performed. Before forgotten these obstacles to good husbandry should be removed. Larger stones, or rocks, are always in the way. It would pay to break them in pieces and remove. These are permanent improvements and should not be neglected.

Bushes that the mower or scythe cannot cut should not be allowed to grow, as they are unsightly and in the way. A meadow should not be disfigured by such a growth. Neither should there be many trees in the field. They detract from the fertility of the soil and are in the way of good cultivation. Where grass fields are top-dressed with manure or other fertilizer the value of such application will become fully apparent in securing the hay crop. Some soils will respond much more readily to such treatment than others, and to these it will pay to give attention.

The effects of the drought have become apparent as the hay was gathered. On fields that last year gave a heavy crop the yield has been reduced one-half and sometimes more. What will be the effect on these fields another year if left in grass is not certain. It is possible that many of these fields will have to be plowed and re-seeded again, and this will make a break on these farms where a rotation has been established. It may be possible that with favorable weather during the rest of the season these depleted grass fields will recover in a considerable measure from the severe effects of the long-continued and almost disastrous drought. It is to be hoped so at least.

We have had but little hay weather as yet. Farmers commenced again this week, but a little rain and much cloudy weather allowed of little progress. E. R. TOWLE, Franklin County, Vt.

The Indian chief Geronimo is reported to have become a Methodist. We had long suspected Brother Geronimo of being something of an extremist.

Another instance of forgiveness,—this time on our own side,—is shown in the Memorial adopted by the class of '62 of Harvard College, in honor of William Ker, a classmate, who left in his junior year, and served in the blue home cavalry in the Confederate States army. His death did not occur until last November, in Natchez, his native place, where he became a teacher after the end of fraternal strife. "In our memories of one of the most charming personalities is that of Billy Ker. He was frank and open-hearted, honest and brave. His sunny nature drew everybody toward him. For an open and affectionate character, and brave heart few ever equalled him. In the prosaic qualities of the class-room he was not to be despised; but in the college rooms and on the river he was our idol!" This is a touching recollection of the bright days of youth when Bulwer says men are brothers, but a higher note of noble charity is struck in the following passage: "Because he followed thus where his own conscience led, he did us honor and dignified the name of scholar." This was said, though the eminent services of the college men who fought under the national flag and hoped to save the Union were eloquently eulogized, and then came this fitting ending: "But a generation has passed since the war was ended, and has softened our hearts, so that we can record today our sincere admiration for all who followed their sense of duty as they understood it. In this class pre-eminently stands William H. Ker, our gentle scholar." No doubt such surviving member of the class of '62 respects in spirit Halleck's lines:

"Green be the turf above thee,  
Friend of my better days;  
None knew thee but to love thee,  
None knew thee but to praise."

The praises of Dr. Haas, who labored to lighten the load of misery under which the exiles of Siberia were well-nigh crushed, are celebrated by a writer in Longman's Magazine, who says: "With tender solicitude for the relatives and friends left by the prisoners, Haas made himself the means by which communication with them could be maintained, writing letters and transmitting to the far-off Siberian convicts gifts of money, books, etc., from home. We find him also distributing immense numbers of

copies of the Bible and other books among the prisoners, receiving much financial assistance in this work from a rich English merchant of St. Petersburg; endeavoring also to impress them with a sense of living personal sympathy amid the hideous conditions and temptations to which they would be subjected in the new life upon which they were entering, he, at his own expense, put together in a little book quotations from the Bible, St. Francis de Sales and other writers, carefully selected and welded together by simple words of his own, in which the keynote was love for others and an unchanging belief in the better side of human nature. A copy of this small volume Haas personally presented to each prisoner in a little bag, and to insure its safety during their long march, they hung it around their necks." Such a true philanthropist could not fail to be warmly regarded by the unhappy people he helped so tenderly and with the true spirit of Christ. They called him "the holy doctor." Haas, we are reminded, realized, in the words of Mikrowicz, the great Polish writer, that in our intercourse with our fellow creatures, no matter what their class or condition, it is essential "to have a heart and to look into that heart."

The good works of women received marked recognition from the late Pope Leo XIII, for he bestowed decorations upon at least three American women. Mrs. William T. Sherman, the wife of General Sherman, was the first woman decorated by him in this country. Miss Gwendolyn Caldwell, now the Marquise de Merville, was in 1888 decorated by the Pope. The Catholic University at Washington was founded largely through her financial assistance, and at a special audience he blessed her for her charity. A year ago last May Miss Annie Leary of New York and Newport was invested with the title of Countess of the Holy See for her lavish philanthropies. It is a purely honorary distinction and carries with it no social recognition in foreign courts, or pecuniary advantage, but Miss Leary, as the only American woman wearing the title, prizes it highly.

Mrs. Caroline Reed of New York, in her will, which has just been filed for probate, after the payment of several bequests to relatives and religious societies connected with the Methodist church, which she had already assisted, divides her estate between her step-daughter, Anna Mary Reed, the Syracuse University and the Reed Christian College of Lucknow, India.

The Sick Children's Mission was organized in New York city thirty-two years ago and some of the original workers are still in its service. It is a summer charity, and it engages experienced physicians whose services are devoted to the worthy poor who apply personally or by letter to the mission headquarters. Visitors and trained nurses follow up and supplement the work of the physicians, the trained nurses rendering most important service in imparting to young and inexperienced mothers instruction regarding the care of their children and the sanitary condition of their homes. Druggists situated at convenient parts of the city fill all the physicians' prescriptions at first cost to the mission, and in cases where patients are so poor as to be unable to provide proper nourishment for the little patients it is also furnished gratuitously by the mission on receiving an order from the attending physician. Such an organization in a great metropolis must be of incalculable benefit, and the devotion of its old-time members shows that good people never weary of doing good.

The new law for the protection of children, which has been passed in Illinois, is one of the strongest that has been enacted anywhere, and forbids all children under sixteen years of age from working more than eight hours a day, and they cannot be employed without permits from the school authorities. They must be also able to read and write before they become wage-earners, providing they are not going to night school. Their hours of labor must be between seven in the morning and seven in the evening, and no child under sixteen can work where liquor is sold.

The death of P. M. Arthur, Grand Chief of the Brotherhood of Locomotive Engineers, removes a remarkable man, and one who did a great deal of praiseworthy work in the labor cause by preventing men from going to extremes. In the formation of the society, of which he was the honored head, he took a prominent part, and after the death of Grand Chief Blanchard in 1874, he was unanimously elected to fill that official's place and had been re-elected every three years since. Mr. Arthur did not believe in strikes. He was an ardent advocate of arbitration, and he steadily refused to allow his association to involve itself in outside labor disputes. He consequently did not endorse what are called sympathetic strikes. His conservatism won the enmity of some other labor bodies, but he had the confidence of the railroad directors and the steady support of the brotherhood over which he so ably presided. A railroad man, speaking of Mr. Arthur, said that, owing to his judicial mind, he knew whether the points in his case were good or not, and from the fact that he was a canny Scot, he was a good bargainer when it came to making a settlement. He early discovered that a labor leader must act on the assumption that he is guilty until he is proved innocent, and so he never laid himself open to the charge of taking money in blackmail. In this case, for the record, he refused to interview the officers of a railroad unless there were present a committee of his men. He enforced temperance

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Better far than coffee or tea—  
Ask your dealer,—and always see,  
That you get Cream of Chocolate."  
—MOTHER SAGACITY

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For purity, flavor, aroma, convenience and economy it has no equal—needs only the addition of boiling water to make a delicious beverage for either breakfast, luncheon or supper.

Doctors endorse it. All good chefs use it, everybody likes it.

Dr. E. F. Spaulding of Roxbury, Mass., says: "Your Cream of Chocolate is delicious and perfect."

Dr. C. D. Gibson Mack, Boston, Mass., says: "I highly approve of your Cream of Chocolate in several diseases."

Dr. L. F. DeGrandpre, Worcester, Mass., says: "I have used your Cream of Chocolate in many cases and have been greatly benefited by it. I can say it is in place of other kinds of chocolate."

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If he does not have it, send us your order and we will send you a 25 lb. can postpaid.

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DANVERS, MASS.



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DANVERS, MASS.

among the locomotive engineers, and drinking men were expelled from the brotherhood, according to his directions. His opposition to the great Chicago, Burlington and Quincy Railroad strike is well remembered, and it is a pity that it is claimed that he did not attempt to prevent the reign of assassination and mob-law, which was one of the results of the unfortunate strike. Considering what a power for good he was among his associates, it is too bad that this imputation rests upon his generally commendable career.

The exports of Argentina for the first quarter of the present year, as shown by the official results of the Confederation, indicate enormous gain in comparison with the periods of 1902 and 1901. Thus in the opening quarter of the current year the cattle exported on the hoof from this fertile South American State numbered 49,722 head, as against 13,177 and 27,932, respectively, in the equivalent periods of 1902 and 1901. The increase in the exports is still more marked in the case of live sheep, 100,735 of these animals having been shipped during the first quarter of this year. In 1902, 8982 were thus shipped, and in 1901, 8322 during the same quarter. The shipments of butter in the first quarter of 1903 were in excess of two thousand tons, and were more than double those for the same term last year.

Ten new rural free delivery routes are to be established near Plymouth, N. H., Aug. 1. One additional route will be established from Lisbon and from South Litchfield, and two additional ones from Littleton. The towns to receive their first routes are Claremont, Colebrook, Danbury, Hill, Winchester and Whitefield.

The programme for farmers' day at Hampton, N. H., Wednesday, July 22, has been issued. The opening address, at eleven o'clock, will be by the Hon. Joseph B. Walker, president of the State Board of Agriculture. Other speakers will be: "The Grange in New England," by Hon. S. Ladd, master of the Massachusetts Grange; "Small Fruits on the Farm," the Hon. J. H. Hale, a noted fruit grower and president of the American Pomological Society; "The Agriculture of New Hampshire," by Hon. J. H. Hale, a noted fruit grower and president of the American Pomological Society; "The National View of Agriculture," by a representative of the national Department of Agriculture; "The College of Agriculture and Mechanic Arts," Prof. C. H. Pettie, acting president of the college.

The following is the programme of the Farmers' National Congress to be held at Niagara Falls, Sept. 22, 1903: Address of welcome, Gov. B. B. Odell, Jr., New York; response, Hon. Harvey Jordan, Monticello, Ga.; president's address; "Farmers' Supply of the United States," Maj. D. G. Purse, Savannah, Ga.; "Agricultural Conditions Understood to Exist in Our Insular Possessions and the Possibilities in Their Development," Hon. Timothy L. Woodruff, Brooklyn, N. Y.; History of Governmental Ownership of Public Utilities; "The National View of Agriculture," O. P. Austin, Washington, D. C.; "Infectious and Contagious Diseases of Farm Animals and their Effect on American Agriculture," Dr. D. E. Salmon, Washington, D. C.; "Diseases and Injuries of Poultry and their Effect on American Agriculture," Prof. F. M. Webster, Urbana, Ill.; "How can we Enlarge our Foreign Markets for Farm Products?" James Wood, Mt. Kisco, N. Y.; "Extension of the Facilities of our Mail System," Aaron Jones, South Bend, Ind.

Pope Leo XIII. died Monday afternoon shortly after four o'clock after an illness of three weeks. He was born March 3, 1810.

Grange day at Laurel Park, Northampton, Mass., was well attended. Herbert Sabin, deputy of the Massachusetts State Grange, spoke upon the advantages of a field day like this to the farmer. Ex-Senator M. A. Morse of Belchertown spoke upon the nobility of a farmer's work and life, and urged all the farmers to belong to the Grange. It's the school where the lessons are to be learned. The great men of the past have come largely from rural districts. We must not lower the record. There is no place in the world better equipped for making noble men than the New England farm. Said State Master George S. Ladd: "The Grange was organized thirty-five years ago, and it has been a tremendous power in the development of rural life in America. During the past year eight subordinate and one Pomona Grange have been organized in Massachusetts. This coming year we hope to enroll at least fifteen hundred new members. There is work for the Grange to do. 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# MASSACHUSETTS PLOUGHMAN

TELEPHONE NO. 2767 MAIN.

Naturally it will be said that the members of the new Boston club are all birds, although not necessarily high-flyers.

The amount of miscellaneous information which we have now acquired about the Vatican is no compensation for the loss of its recent inmate.

How would you like to dust the New York assay office? The recent thorough house cleaning cleared up about \$10,000 worth of stray gold-dust.

Certainly the Hub will be interested in Mabel's memoirs; but was it altogether kind to speak severely of some of the very gentlemen who attended her funeral?

Woods Hole ought to develop some stories just at present that would make even the fish listen, at least those that Professor Parker has proved to be capable of hearing.

The only excuse that can be offered by the cook who recently started a disastrous hotel fire by his careless treatment of a can of coal oil is that he didn't know it was loaded.

A Malden boy of four years swallowed a tin duck the other day, and apparently he isn't nearly as badly off as lots of old gentlemen who have swallowed a great many canyass-backs.

No one could really blame the railroad companies for believing that when the average suburban resident has nothing else to think about he immediately begins dreaming of a reduced car fare.

That is a charitable thought on the part of the Newport society leader who proposes to entertain her guests by temporarily importing a cage of wild animals. It will be such an interesting study for the animals.

There's an indirect compliment to European customs inspectors in the rumor that, as a result of surveyor Bishop's recent examination of European methods, things are to be made easier for travelers who land at New York.

We object to the headline in a contemporary that refers to the late Mr. Whistler's "most happy marriage to Mrs. Goodwin." Mr. Whistler only married Mrs. Goodwin once. Isn't it enough to insist upon his having been born in Lowell?

Down at Stapleton, N. Y., the mosquitoes have assumed the defensive, even to the extent of attacking a meeting of citizens gathered to devise means for their extermination. The mosquitoes, of course, probably had no desire to exterminate the citizen, but they would have their reasons.

A little girl in Brookline, the other day, found a woman's purse containing money and jewelry worth something over five hundred dollars, for which she received a reward of twenty-five cents. We trust the owner did not neglect to add: "And thank you so much, dear little girl."

And now a reverend gentleman, prominent in the Actors' Church Alliance, has resigned his pastorate in order to devote himself entirely to members of the dramatic profession. But isn't this rather suggestive of a classification of humanity, that places actors and cannibals in the same pigeon-hole?

Plain humanity and a direct descent from Mother Eve are evident in the decision of a majority of Chicago co-eds that they'd rather be beautiful than intellectual, that college-bred women ought to marry, and that woman can do more good in the home than anywhere else. But what do the Boston co-eds think about it? Speak lively, maidens!

The boom in chestnut culture has been under way for many years, but orchard-grown nuts are still a rarity in the market. Between thieves, weevils and forest fires the growers have been having a hard time, yet there are a few successful orchards and groves, and what has been done by some may be done by many others.

The woman in the case seems to be very much in evidence in the legal drama now on the boards of a Montana law court—a drama in which the interest centres around a mine, a paid adventuress, a corrupt justice and a female detective. With one side trying to force a resignation on the part of the judge, and the other endeavoring to prove perjury on the part of the "lady detective," the case presents interesting material for the student of modern intrigues.

Nobody will question the propriety of Lord Roberts' request that the officers and men who served in South Africa return the Bibles which they appropriated during the late unpleasantness. If the Bibles are family Bibles, of course there will be no difficulty in finding the address of their former owners, and the incident serves as yet another illustration of the Bible-loving character of the English nation.

The teaching of horticulture to children seems to have good results that might be expected. The professional gardener is usually a steady, industrious, even-tempered, safe and systematic man, and it appears that the young students acquire, in some degree, the same qualities. They also learn housework. After a boy knows just how much hard work is needed to produce a crop, he naturally sides with the growers, and stolen fruit loses its sweetness.

Farmers' field days, held at college grounds, seashore, fruit plantations and stock farms are becoming very popular. Those who attend the gathering of the Massachusetts cattle owners in Rutland this week Saturday will visit an attractive section of the State and have the pleasure of inspecting a well-known farm and meeting its owner. After the serious experience which the New England cattle owners have been passing through the past seven months, there should be no lack of something to talk about on the occasion of gatherings like the one mentioned.

Seldom has a more radical change in crop outlook taken place than in the case this year of the great agricultural staple of the Northeastern States, the hay crop. At one time but little more dry weather would have been needed to cause a positive failure. But improvement has been so extremely rapid that the gain has kept well ahead of the official reports, and the crop may now

be considered on the average a fairly good one, and, so far as present indications go, likely to bring a fair price in the market, provided its quality is not greatly impaired by rain during hay season.

Many of those interested in the cattle and wool trade seem to have expected that the restrictions would be entirely removed from New England ports this week. The local officials, in fact, declare they have been daily expecting orders from Washington to that effect, but so far nothing of the kind has been received. The wool traders are particularly impatient at the delay, which puzzles them in view of Secretary Wilson's published declaration that the foot and mouth disease has been exterminated in New England. So far as concerns the cattle exporters, not much can be done in any event until the British authorities have been persuaded to remove the embargo at their end of the route of trade.

Leading Western live-stock men have been heading a movement to secure a crop and stock census every five years instead of every ten, as at present. The argument is that reliable official estimates cannot be made unless based on statistics of fairly recent date. The plan is to secure the main facts in a condensed form so that they can be quickly compiled and made public. The great trouble with the ten-year census apart from its infrequency is the long delay before it is published. The new movement seems to be in the right direction. Anything that tends to give the farmers reliable information about the crop and stock situation helps them to control their own products, and takes away some of the advantage possessed by speculators.

One of the worst cases of devastation by the gypsy moth is on the estate of Gen. Samuel C. Lawrence in Medford. The fine, well-cared-for oak grove of about six acres has been stripped of leaves by the ravenous insects. The force of thirty-three men employed to fight the moths are shown at their work in the illustration elsewhere. Every tree is wound with burlap, under which the caterpillars are caught, and later destroyed. These traps of burlap are visited daily. General Lawrence has waged war on the insects for years, and is one of the few who need not consider expense in saving his trees. Elsewhere in the infected districts no systematic methods have been used since the State gave up the contest, and the situation has now become extremely serious.

**The Moth Invasion.**  
Critics who oppose State and national warfare on the gypsy and brown-tail moths, often miss the main point in comparing these pests to such insects as cankerworm and potato bug. In these latter cases the harm has been already done, the insects are everywhere and must be fought forever at a vast yearly expense.

The new pests are confined to comparatively few square miles, and past experience has shown that they may be at least prevented from rapid spread, and this at far less cost to the country as a whole than if allowed first to extend their feeding grounds until they infest the whole continent.

The farmer of the near future will be puzzled and disgusted with the short-sighted, half-hearted manner in which the authorities have met the invasion of these destructive insects. Massachusetts has become well-nigh discouraged fighting alone, while Congress remains apparently indifferent to a matter of far greater future importance than nine-tenths of the measures which receive aid from the Treasury. If Massachusetts had been a farming State and also a doubtful State in a political sense, the problem would have surely met different treatment at Washington.

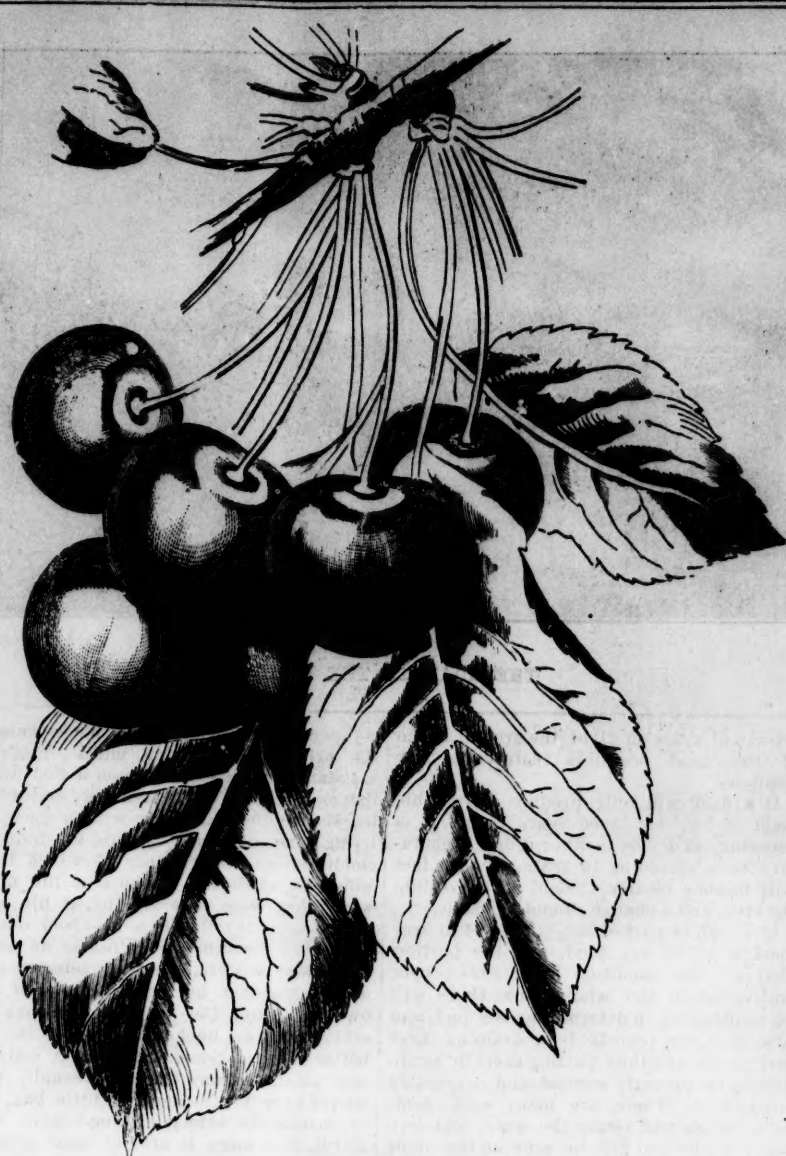
As it is, adjudging from the course of the past ten years, Congress will probably wait until the invasion reaches New York State, by which time action would come too late for full effect. Congress is like the boy who drove a muskrat through a hole in the dam and waited for the aperture to become large enough to send his dog through. There will be more political capital in fighting the insects after their distribution over large area, and after the people have become thoroughly aroused to the situation, but the delay will be dangerous and expensive business for the producers of crops and owners of woodland.

**Babies in Summer.**  
A valued correspondent writes us that it seems wretched children must remain in the city during the heated term, and says that if she were only a "Vanastorgold" she would emigrate to Boston of all little people. She would pipe them out and away into the beautiful green Berkshires and over the Merrimack to the hills of New Hampshire, and take her pay with her own uncomparable, making them acquainted with God's great wonderful out-of-doors.

This is one of the many good works she believes would bring the joy of angels into this poor old world, but she, alas, being only a poor toiler, her dollars for benevolent purposes are only pennies. She thinks she is doing nothing for the kingdom, and that she is a mere "cumber," but, as a matter of fact, she is giving much—a great sympathetic heart, and an unfailing cheerfulness, which widens into a smile that only the recording angels can measure.

She is giving what she can, are you? A walk through certain quarters of our city will reveal thousands of little ones that poverty has chained to blistering curbstones and stifling alleys. Winter brings to the poor its own peculiar hardships, but those of summer are more deadly, and the actual suffering among little children at this time cannot be estimated. This may result from the need of a little flannel to protect the bowels, the lack of a little ice to keep the milk sweet, or the want of healing powder, medicines and predigested foods. The death rate among the babies in August and even in September is enormous.

Some mothers do not know how to properly care for their children. Others with more intelligence and experience are overburdened, and have not the ambition to be neat. They need help and encouragement. The Fresh Air Society, the Floating Hospital, the Lend-a-Hand Society, the Free Ice Fund and many other noble charities are eager to assist, but their funds are limited, and the demands upon them are ever increasing. Unluckiness, the natural outcome of ignorance, is the most insidious evil that these organizations have to contend with, and the poor mothers have to be educated up to higher ideals. The Floating Hospital saves the lives of as many babies through instructing the mothers as it does through the efforts of the skilled doctors and nurses that it employs. On every trip of the boat, after a nourishing dinner, those who accompany the children, mothers or elder sisters, are gathered into the cool cabin, where a brief lecture on the care of infants is given, together with a



CHERRIES, GOVERNOR WOOD.

practical demonstration regarding the preparation of food and the sterilizing of bottles. Our correspondent asks each person who is going into the country or to the seashore to spare one dollar from the money they have saved for a vacation as a mite towards helping the charities named, and she is sure that it will be well expended by the worthy society to which it is contributed. It is a good suggestion; act on it, and you will be lending to the Lord.

**Smoke and Forest Fires.**  
A serious result of the drought, lately past, was the outbreak of many forest fires that not only devastated large areas of wood and timber land, but destroyed many isolated farmhouses and hamlets. The village of Bragville, Me., was completely wiped out of existence, not a dwelling being spared. The amount of smoke and fire ashes held in suspension by the atmosphere finally became so large that optical and atmospheric conditions over all New England were affected, and so called "yellow days" occurred from the third to the seventh of June. At different hours of the third, varying with the localities, the peculiar appearance of the sky became evident, increasing in intensity on the fourth and fifth, and disappearing at most points on the seventh.

What, at first, appeared as a simple, hazy condition, increased till the sky had assumed a yellowish color and the sun appeared as a red ball. So dense was the smoke at its maximum intensity that there was no difficulty in viewing the sun with the eye unprotected, and during the night the stars were obscured. The wind moved for the fourth, fifth and sixth was very light, so that the smoke, with but little motion, hung like a pall over everything. The odor of burning wood was plainly noticeable, and in many places, there were deposits of fine ashes. Perhaps the most notable day comparable with those just past was the "Dark Day" of May, 1780. Its occurrence played havoc among the superstitious, and it is interesting to read the theories then advanced to account for it. In later years the "Yellow Day," Sept. 6, 1881, is best remembered. That was, doubtless, also, due to forest fires that occurred principally to the north of New England in Canada. It was of short duration, the smoke first becoming evident in the early forenoon and disappearing with the advent of evening. The smoke, was, however, much denser and obscured the sun more completely. Among this class of phenomena may also be included the haze that occurred over the whole world after the eruption of the volcano Krakatoa in the Strait of Sunda in August, 1883. That particles of the volcanic dust then taken up by the atmosphere were still in suspension as late as 1886, was shown by the optical phenomena due to it that still occurred.

**A New Use for Milk.**  
At the hygienic milk supply exhibition, which was lately held at Hamburg, a manufacturing concern of Hamburg and Vienna, exhibited a number of objects which seemingly had nothing whatsoever to do with hygienic-milk supply. There were shown, nicely arranged in glass boxes, combs seemingly made of horn; cigar-holders, with amber-colored mouthpieces; knives and forks, with handles similar in appearance to ebony; ferrules for umbrellas and sticks, and balls, rings, chess figures, dominoes, etc.; also a small table with an inlaid marble slab, and finally a number of thick slabs and staves with every imaginable variation of marble colors, but of considerable less weight than real marble. These objects were made of "galalith," which means milk-stone.

Skimmed milk, in spite of its many valuable qualities, has so far been little used; it contains a considerable portion of nutritious matter—i. e., 1 liter (1.05 quarts) of skimmed milk is of about equal value to a quarter of a pound of meat. It is by far the little appreciated as a cheap food for the people, because what the German peasant cannot sell to milk-sugar factories or use for the manufacture of cheese is given to cattle and pigs as food. The principal albumenoid substance of skimmed milk, the casein, is the raw material out of which the new product galalith is manufactured.

An advantage of the new product as compared with celluloid is the fact that it does not ignite so easily and is entirely odorless. Trials have proved that even when kept for weeks in water it does not distill more than the best quality of buffalo horn; after one month it had not soaked in more than twenty per cent. of water. Of late trials have been made to produce, by the addition of vegetable oils, an insulating material for electrotechnical purposes.

**The Sargent Portraits.**  
There has been a great deal of discussion about the rapidity of Sargent as a painter, in connection with the eighteen portraits, now on exhibition in the Boston Museum of Fine Arts, which he painted in fifteen weeks during his recent visit to this country. The pictures are all good likenesses, and show that Mr. Sargent is a great artist. His method, however, should not be imitated by those who are without his natural facility for quick work. They would fail where he succeeds, and would make mechanical botches where he makes genuine works of art.

Other painters of eminence are slower in conception and execution than Mr. Sargent, but their productions have the merit of a finish which his pictures do not possess. Sir Walter Scott wrote novels at almost lightning speed, and Balzac evolved them with infinite pains, yet both were eminent creators of fiction. Neither could have adopted the other's manner of composition advantageously, though each was unrivaled in his peculiar field.

Sargent is obliged to follow his own instincts and inspiration, or paint not at all, and we presume he has no objection to the methods of his artistic contemporaries. Like the man in the play, he is himself alone. At the same time, it must be confessed that the portraits now shown here impress many as being sketchy, with a neglect of some details, particularly in the drawing and the modeling of the hands, and there is, perhaps, not character enough shown in the faces of the women, who appear too self-conscious, and as if they were on exhibition. The men are much better, and the portrait of Col. Henry L. Higginson could hardly be improved upon. It is a speaking likeness, full of strength and individuality. The portrait of Gen. Leonard Wood is also characteristic, and so is the picture of James Whitcomb Riley, the Hoosier poet.

The fact remains that the portraits are wonderfully natural considering the short space of time in which they were all painted. Most any well-trained artist might turn out one portrait in an almost incredibly short time, but he would find it impossible to follow the lead of Mr. Sargent and paint eighteen really good portraits in fifteen weeks. If Mr. Sargent tried to be other than he is he would lose his originality, and art would probably mourn the loss of a great artist in a decidedly mediocre one.

**The Brick Industry.**  
The largest brick-making region in the country is the Hudson-river valley in New York State, where nearly a billion bricks are made annually. Pennsylvania leads in the production of pressed brick. Most of the terra cotta comes from New York, New Jersey and Illinois. Although West Virginia was the cradle of the paving-brick industry, Ohio now leads in the production of vitrified brick. Ohio, Illinois, Indiana and Michigan are the most important producers of drain tile, and Ohio is the main producer also of sewer pipe. Pennsylvania produced over four and a half million dollars worth of fire brick, about one-half the total production, in both 1900 and 1901. Ohio, New Jersey and Pennsylvania, in the order named, are the greatest producers of pottery, East Liverpool, Ohio and Trenton, N. J., being the chief centres of production.

**A Late Arrival.**  
Grover Cleveland is again a father, at sixty-six or thereabouts, but that does not surprise us, for De Lesseps when he had become an octogenarian welcomed a new-born offspring to his home and heart. The only sad thing about these somewhat late arrivals is that their paternal protectors cannot reasonably hope to see these children grow to maturity. Neither can they look forward to the pleasure of being called grandfathers.

It is safe to say that Mr. Cleveland will not live to see a son or a son's son in the Presidential chair, though in the course of human events one of the descendants of our ex-President may arrive there. Have we not had two Adamases and two Harrisons in the chief executive office of the nation at different times, and we may have a second President Cleveland in the frolicsome honor of Teddy in the White House. Mr. Roosevelt believes in big families and so does Mr. Cleveland, in spite of the fact that harmony does not always exist among them. Benedict in "Much Ado About Nothing," says, "The world must be peopled," though the Shakespeares do not endorse this dictum. A similar refusal to accept it was shown by James Buchanan, who lived in single blessedness until his death, and had to

summon a niece to preside at social affairs in the executive mansion during his official life there.

Grover Cleveland was in much the same position when he first went to Washington, and his sister, Ruth Cleveland, tried to be her brother's hostess. She, however, was not an eminent success in this capacity, and so, after he had been well seasoned in bachelorhood, Mr. Cleveland took to himself a charming wife, who proved to be a genuine lady of the White House, rivaling all the democratic queens that had preceded her at Presidential functions, where graceful feminine courtesy and tact were demanded. And she has proved more than this, for when she retired to private life she showed that, as ruler of the domestic hearth, she was a helpmeet of which any man might be proud—a devoted mother and a woman with no desire for notoriety on his own account. May she live long and prosper! Likewise the new arrival at Gray Gables!

**Restoring the Country Fairs.**  
Too much prominence is given to the Brookton idea. Consequently the interests of genuine agriculture have suffered. What is more, the policy has resulted in financial failure, in a considerable degree. That is, the Brookton idea is all right enough for Brookton. It calls together an immense concourse of people from all over the eastern part of the State. It makes use of all sorts of entertainments. The city suspends other business, and everybody turns out to make a great day of the fair. It is a success financially. But how much does it promote the interests of agriculture?

The educational side of the agricultural fairs has been neglected, while the Brookton idea has been fostered. Other parts of the State cannot imitate Brookton, and the consequence is that the quality of the fairs has declined until they pay less attention to the agricultural interests than they should, while the prices paid to other attractions have made it impossible to run the fairs successfully in a financial way in many cases. But, if the fairs are restored to their legitimate function, if they are made agricultural fairs first of all, and the side-shows are given a smaller place, then the people of the State will once more value them for their intrinsic merit, and they will be restored to their former leading place in the estimation of the people who have a personal and financial interest in things agricultural.—C. L. Ellsworth, Secretary Massachusetts Board of Agriculture.

**Uncle Sam's Big Pocketbook.**  
A number of interesting figures about the finances of the United States are given by Mr. Frank Bryant in the June Success. The people have in their possession now about \$2,300,000,000, or \$29.34 for every person. Seven years ago, the per capita circulation was \$21.10, and at the beginning of the civil war it was \$13.85. In Great Britain, the corresponding figure is \$18.29; and in Germany \$19.92. In supplying the country with currency, seven assay offices, five mints, and a great printing-office are kept busy.

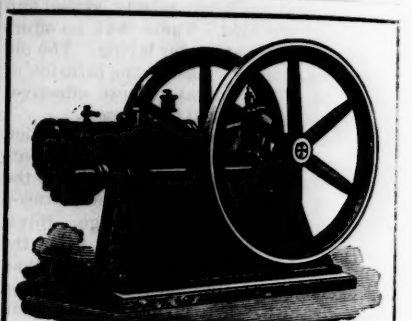
"Three thousand people are employed under the shadow of the Washington monument, keeping the country supplied with new paper money, postage stamps and internal revenue stamps. The present daily output of the Bureau of Engraving and Printing, which, like the new mint at Philadelphia, ranks as the finest institution of its kind in the world, is 136,000 sheets of silver and gold certificates and United States notes, twenty-five thousand to fifty thousand sheets of national bank currency, 215,000 to 250,000 sheets of internal revenue stamps, and fifteen to twenty million postage stamps. Last year there were 106,700,000 pieces of new paper money issued, of an aggregate value of \$406,800,000, or one-fifth of the entire national circulation. The demand for new notes of the small denominations. In 1890, there were 37,000,000 pieces of Government paper issued, of the average value of \$6.61; last year, the quantity has been trebled, and the average value had fallen to \$4. The average is now only \$3.62. The actual increase in the paper currency, last year, was \$76,000,000. The number of coins struck at the mints was 191,000,000 of the value of \$38,000,000, of which \$62,000,000 were gold. This year the expenditures will be about \$651,000,000, including \$132,000,000 for the postal service, which is nearly self-sustaining. The revenues will amount to about \$694,000,000, leaving a surplus of \$43,000,000. Last year's surplus was \$91,000,000, of which some \$70,000,000 were used in the redemption of Government securities. The heaviest item in our national expenditure is the pension account, which now amounts to \$138,000,000 a year. On the army, this year, we shall spend \$130,000,000; on the navy, \$85,000,000. The civil establishment will cost \$128,000,000. The interest on the public debt will be \$27,000,000.

The House of Representatives costs us \$3,000,000 a year, and the Senate \$1,400,000, while the public printing-office uses more than \$6,000,000. The executive office calls for only \$112,000, a bagatelle compared with the \$4,000,000 England gives the royal family. On foreign intercourse we spend \$2,700,000, but consular fees and other receipts out this figure to a million. In the Treasury Department the customs service costs including the revenue-cutter service \$9,000,000; the collection of the internal revenue \$4,600,000; the lighthouse establishment calls for four millions; the life-saving service for \$1,700,000; the engraving and printing works \$2,000,000. The pay of the army is \$37,000,000; the quartermaster's department uses \$32,000,000; guns cost \$11,000,000; the expenditures on rivers, harbors and forts, \$16,000,000; the pay of the navy is \$15,000,000; the cost of new vessels \$30,000,000.

"Nearly all the public income is collected from two sources—customs and internal revenue. This year the customs duties will amount to \$300,000,000, and the internal revenue taxes to \$222,000,000. From a score of miscellaneous sources \$40,000,000 will be collected, the principal item being some \$10,000,000 of profit on the coinage of silver. Two great corps of revenue-collectors, maintained at an annual cost of nearly \$15,000,000, gather the moneys due the Government, from Key West to Behring Sea. Special agents scour the country for smugglers, moonshiners and other evaders of the revenue laws, and hardly a year goes by without at least one Government officer losing his life in running down moonshiners.

"To collect the customs costs \$3,000,000 a year; to gather the internal revenue \$4,600,000; or, to collect a dollar of customs costs a trifle more than three cents, while the cost of collecting a dollar of internal revenue is a little less than 12 cents. The great customs port is New York, which turns into the Treasury duties amounting to \$170,000,000 a year, not far from a third of the entire expenditure of the Government, outside of the postal service. The collection of customs at New York employs 2200 persons, and the cost of collecting a dollar is 1-10 cents. This low

record is equaled at Chicago, where import duties of nearly \$10,000,000 are collected. The great internal-revenue town is Peoria, Ill., the centre of the Bourbon-whiskey distillery district. The Government's revenue collections there amount to \$31,000,000, or more than enough to pay the interest on the public debt. Only nineteen men are employed to collect this tax, and the cost of collecting a dollar is but four-tenths of a cent. Among the two hundred or more towns designated as 'ports of entry' for the collection of customs, there are many that do not receive enough money to pay their running expenses. At Cherry-stone, Va., last year, the Government spent nearly a thousand dollars to collect \$2 at Lacrosse, Wis., it cost \$360 to collect \$3.

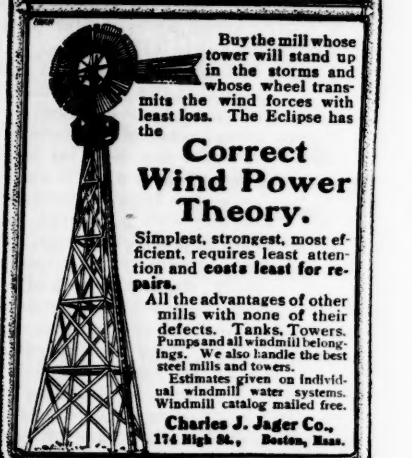


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## The Markets.

## BOSTON LIVE STOCK MARKETS.

ARRIVALS OF LIVE STOCK AT WATERBURY AND BRISTOL.

For the week ending July 29, 1903.

	Sheep	Cattle	Hogs	Calves
This week	14,336	84	22,048	1,005
Last week	10,000	100	24,113	1,062
One year ago	3,228	7795	135	21,408
Horses	601			2131

## Prices on Northern Cattle.

Best—Per hundred pounds on total weight of beef, tallow and meat, extra, \$4.00; first quality, \$3.50; second quality, \$3.00; third quality, \$2.50; a few choice single pairs, \$7.00; some of the poorest lots, \$2.00. Store cattle—Farrow cows, \$10.00; fancy milk cows, \$20.00; milk cows, \$10.00; yearlings, \$10.00; two-year-olds, \$15.00; three-year-olds, \$20.00. SHEEP—Per pound, live weight, \$1.00; extra, \$1.10; sheep and lambs per cwt. in lots, \$3.00; lambs, \$1.00. Fat Hogs—Per pound, Western, \$1.00; live weight, whole sale—retail, country dressed hogs, \$1.00. VEAL CALVES—\$1.00 per lb. HIDES—Brighton—70¢ per lb.; country lots, \$1.00. CALF SKINS—120¢ per lb.; dairy skins, \$1.00. TALLOW—Brighton, 40¢ per lb.; country lots, 20¢. FELTS—10¢ per lb.

	Cattle, Sheep	Cattle, Sheep
At Brighton		
E. R. Foye	12	5
J. D. Rogers	10	5
Farthington L. S.	10	5
Co.	10	5
Thompson & Co.	10	5
Hanson	30	10
S. Eaton	10	5
Libby Co.	10	5
New Hampshire		
At N. E. M. & W.		
A. F. Jones & Co.	10	5
Ed. Sargent	10	5
Health & Co.	10	5
J. Gordon	10	5
Week & Wood	10	5
W. E. Hayden	10	5
At Waterbury		
W. E. Hayden	40	735
A. P. Needham	10	5
At N. E. M. & W.		
W. A. Ricker	10	5
F. Ricker	10	5
B. Ricker	10	5
At Brighton		
J. S. Henry	10	5

## Live Stock Exports.

By latest cable the English market on State cattle has not changed in prices from the previous week. On best grades, such as come from the United States, 12¢, d. w., covers price on State cattle. Ellman cattle are offered, but do not affect prices on best cattle. It is expected that very soon exports of live stock will be resumed from New England at Boston and Portland. No shipments of horses this week.

## Horse Business.

The past week was one of fair proportions for the sale of horses in the market. Waterbury were offered found sale steady prices. Several shippers sold out and returned West for fresh supplies. Sales largely for business purposes. At L. H. Brockway's sale the stable trade was called good, and they were quiet. At Western horses, chunks mostly, at \$125 to \$225. At Welch & Hall Co.'s it was just a fair week. They sold Western work horses at \$140 to \$250; second at \$100 to \$150. At Cavanaugh Bros. a consignment of 22 choice family and saddle horses sold at \$200 to \$300; heavy drafters were quiet. At Moses Colman & Son's were sold 60 head for general purpose, at \$20 to \$150, with good call for saddlers at \$200 to \$300. Ponies at \$125 to \$225. At L. H. Harris & Son's was a fair trade of 4 carloads, some Vermont horses; sales of draft horses were at \$125 to \$300.

## Union Yards at Waterbury.

Tuesday—The local country train was not heavy, but arrived early, and the stock went to Brighton and New England works. Values on best cattle were stronger on best grades and easier on slim stock. The quality in general was better than last week. Stock was yarded and sold, but not weighed at these yards. O. H. Forbush sold 2 good beef cows, of 1000 and 1200 lbs., at 4¢; 1 cow, of 900 lbs., at 3¢; 1 bull, of 1200 lbs., at 4¢; 1 cow, of 700 lbs., at 3¢; 1 A. F. Hathaway sold 10 home trade, 25 steers, of 1000 lbs., at 3¢; 25 doz., of 1400 lbs., at 3¢; 20 doz., of 1300 lbs., at 3¢; 40, of 1200 lbs., at 4¢.

## Milk Cows.

Were offered and changed hands at \$40 to \$50.

## Fat Hogs.

Western were lower by 1¢, and sold at 4¢ to 4½¢.

## Live Horses.

Sixty odd canoes were put upon the market from the West, mostly lambs. The agents West bought freely for this market as prices were \$1 per lb. lower on lower grades, and 1¢ lower per 100 lbs. on the best. Sheep sold at \$3.00 to \$3.50 per 100 lbs. at \$2.00 to \$3.00 per 100 lbs. at \$2.00 to \$3.00 per 100 lbs.

## Veal Calves.

Prices have been so low for a number of weeks that dealers must have a chance for the better. They came to market asking fully 1¢ advance, but butchers could not see a chance for improvement, and a number killed on commission. Range in price, 4¢ to 1¢, a few head at 5¢.

## Live Poultry.

No change. Fowl, 13¢ to 14¢. Broilers, 15¢ to 16¢. Ducks, 8¢ to 9¢.

## Doves of Veal Calves.

Maine—E. R. Foye, 20; J. D. Rogers, 4; Farmington Live Stock Company, 5; Thompson & Hanson, 30; S. Eaton, 17; Libby Company, 50. New Hampshire—A. F. Jones & Co., 200; Ed. Sargent, 41; George Heath & Co., 80; J. B. Gordon, 30; Brock & Wood, 20; W. E. Hayden, 17. Vermont—W. E. Hayden, 40; A. F. Jones, 40; W. A. Ricker, 25; F. Ricker, 125; B. F. Ricker, 60; A. Davis, 50; Fred Savage, 40; G. H. Sprig, 20; A. Williamson, 30; N. B. Woodward, 30; J. S. Henry, 30. Massachusetts—J. S. Henry, 10; O. H. Forbush, 10; W. E. Hayden, 14; C. D. O'Neil, 15; scattering. N. H. A. Gilmore, 16; L. Stetson, 10; A. Wheeler, 6; P. Day, 25.

## Brighton, Tuesday and Wednesday.

Stock at yards: 52 cattle, 754 sheep, 18,001 pigs, 14 calves, 240 horses. From West, 280 cattle, 50 sheep, 14,000 hogs, 240 horses. Maine, 10 cattle, 19 sheep, 21 hogs, 250 calves. Vermont, 10 cattle, 51 calves. Massachusetts, 125 cattle, 10 calves, 127 calves. Tuesday—The trade was considered not equal to last week on slim cattle, while the better grades found ready disposal and at stronger prices. Some good cattle found sale at better than 1¢, from that figure down to 1¢. Sales were frequent at 8¢ to 10¢. H. A. Gilmore sold 10, of 700 lbs., at 1¢; 10, of 800 lbs., at 1¢; S. Eaton sold 1 pair 2200-pound steers at 8¢. A. P. Needham sold 3 cows, average 700 lbs., at 1¢. P. Day sold cows and bulls, 510

## Not over 150 head are on the market.

Dealers got the lay of the land last week and found that a full supply this week would not be wise, considering the demand. A fair demand prevails for the better grades. W. Cullen sold a lot of choice cows at \$55 a head. R. Connors bought to sell again, 15 choice cows at \$50 each. Various sales were made at \$35 to \$45.

## Veal Calves.

The arrivals changed hands, but dealers were slow to accept offers, but the most part unchanged or on commission. Thompson & Hanson sold 10 calves, 127 lbs., at 4¢. Farmington Live Stock Company sold 75 calves at 4¢ to 5¢. J. P. Day sold 25 calves, 120 lbs., at 4¢. E. R. Foye sold 20 calves, 120 lbs., at 4¢. H. A. Gilmore sold at 4¢ to 5¢.

## Late Arrivals.

Wednesday—There were on sale 100 head of milk cows, against 280 head one week ago. Buyers were not numerous in the market. Waterbury now that the quarantine is off, prices would be too high on account of heavy demand, but milk cows are selling slowly, and prices are no higher than a year ago in July. The medium-grade beef cattle are neglected. A demand calls for very poor or the good grades. Libby Co. sold milk cows from \$22 up to \$50. J. S. Henry sold 15 head at \$40, \$45, \$50 and \$55. Thompson & Hanson sold 3 milkers for \$130; 1 at \$40; 3 at \$35. E. R. Foye, 3 at \$30; 2 at \$40; 1 at \$50. M. G. Flanders sold 3 cows at \$40 each. W. Cullen sold 2 choice cows, \$110. Farmington Live Stock Company made sales at \$35 to \$55. George Cheney sold 4 cows and 1 bull, 4700 lbs., at \$285. L. Stetson sold 10 calves, 105 lbs., at 5¢.

## Store Pigs.

Two dollars and fifty cents to \$5.00 would cover sales of suckers and sows.

## BOSTON PRODUCE MARKET.

## Wholesale Prices.

## Fresh Killed.

## Northern and Eastern.

## Roasters, choice, per lb.

## Broilers, 3 to 4 lbs., per lb.

## Fowls, extra choice, per lb.

## Pigeons, tame, choice, per doz.

## Pigeons, wild, choice, per doz.

## Squabs, per doz.

## Western lead—

## Broilers, common to choice, per lb.

## Fowls, fair to choice, per lb.

## Old cocks, per lb.

## Receipts July 28, were 100 packages.

## Live Poultry.

## Fowls, per lb.

## Broilers, 2 lbs each, per lb.

## Spring ducks, per lb.

## NOTES—Assorted sizes quoted below include 30, 50 lb. tubs only.

## Creamery, extra—

## N. Y. &amp; N. H. assorted sizes, per lb.

## Northern N. Y. large tubs, per lb.

## Tubular, extra choice, per lb.

## Western, ass. spruce tubs, per lb.

## Creamery, northern firsts, per lb.

## Creamery, western firsts, per lb.

## Creamery, seconds, per lb.

## Creamery, eastern, per lb.

## Dairy, N. Y. &amp; Vt. firsts, per lb.

## Dairy, N. Y. &amp; Vt. seconds, per lb.

## Renovated, per lb.

## Boxes—

## Extra northern creamery, per lb.

## Extra dairy, per lb.

## Common to good, per lb.

## Extra northern creamery, per lb.

## Extra dairy, per lb.

## Common to good, per lb.

## Cheese.

## New York twins, extra, new, per lb.

## New York twins, extra, new, per lb.

## New York twins, extra, new, per lb.

## Vermont twins, extra, new, per lb.

## Vermont twins, extra, new, per lb.

## Vermont twins, extra, new, per lb.

## Wisconsin twins, extra, new, per lb.

## Wisconsin twins, extra, new, per lb.

## Eggs.

## Nearby and Cape fancy, per doz.

## Southern, sweet, per doz.

## Michigan firsts, per doz.

## N. Y. &amp; N. H. choice fresh, per doz.

## Jersey Rose and Hebron, per doz.

## N. Y. &amp; N. H. choice fresh, per doz.

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## MASSACHUSETTS PLOUGHMAN, SATURDAY, AUGUST 1 1903



FIRST AND SPECIAL PRIZE SILVER GRAY DORKING COCK, BOSTON AND NEW YORK.  
Owned by Watson Westfall, Sayre, Pa., Secretary American Dorking Club.

## Fruit.

## Apples, Southern, per bbl.

## Jersey sweet, per bbl.

## Jersey, fancy, per bbl.

## Ashtabula (New York), per bbl.

## Native, per bbl.

## Pineapples, Florida, per box.

## Blackberries, per doz.

## Hudson River, per doz.

## Blueberries, per doz.

## Raspberries, per doz.

## Native, per doz.

## New York, per doz.

## Currants, per doz.

## Muskellons, per doz.

## N. C. per crate.

## Watermelons, per doz.

## Florida, each, per doz.

## Georgia, per carrier.

## Pears, per doz.

## Cl. de Conte, per bbl.

## Hides and Pelts.

## Stubs and cows, all weights, per lb.

## Hides, southern, light green, per lb.

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## Our Homes.

## The Workshop.

## BABY'S KNITTED JACKET.

Materials—Two and one-half skeins of three-thread white Saxony, 1 pair of bone needles No. 1, one fine bone crochet hook. For border use 1 skein of pink or blue three-thread Saxony.

This jacket is knitted in one piece, sewed up under the arms and along sleeves, and is finished with a crocheted border in the crazy stitch.

With white cast on 102 stitches for lower part of back.

1st row—One plain, (\*) make three stitches out of the next stitch by sewing 1, knitting 2, then 3 together. Then knit 3 stitches together, and repeat from (\*), knitting the last stitch on the needle. Turn.

2d row—Plain knitting.

3d row—One plain, (\*) knit 3 together, make 3 out of next stitch as before, and repeat from (\*) across the row, knitting the last stitch on needle.

4th row—Plain knitting.

These four rows form the pattern. The entire jacket, with the exception of the border, is knitted in this pattern, which must be understood without further reference. Knit to a depth of 4½ inches. Then cast 51 stitches on each end for sleeve; having 20 stitches on the needle. Knit 4½ inches more. Leave 80 stitches each end of sleeves and bind off the intervening stitches for the neck. Make one front after the following directions and then make the other to correspond.

Front—Knit 4 rows, which is 2 rows of knobs.

Increase 1 stitch every other row at the neck until there are 92 stitches on the needle.

Knit 3 inches. For the sleeve bind off 51 stitches, and with the remaining 41 stitches knit the front for 4½ inches more, and bind off.

With crochet hook and colored Saxony make a row of 36 single crochet across sleeve for cuff. Make 9 rows of crazy stitch. Sew up sleeve and under-arm seam and turn out back half way.

Border around jacket—Make 4 rows of crazy stitch, widening at corners in front by making an extra group of crazy stitch.

Around neck of jacket with cable make 2 rows of single crochet.

3d row—Make a row of double crochet in every other single crochet with a chain between each. Finish with a row of crazy stitch.

Draw a ribbon through holes at neck.

To Work Crazy Stitch—Make chain length required (this is just crazy stitch; of course it is told above how you will start for the jacket). Knit 3 double in the third stitch from hook and 1 single in the sixth stitch from the hook. This is done to fasten the shell. Chain 3, make 3 double in same stitch with the single crochet; fasten shell as before with 1 single in the third from the shell; continue in this way to end of chain. Turn.

2d row—Chain 3, make 3 double in last single made in first row, fasten this shell 1 single in the point of the next shell. Chain 3, make 3 double in the next space formed by a chain of 3 stitches; fasten with 1 single in the next point; repeat to end of row. Repeat second row until work is completed.

EVA M. NILES.

## Praise Your Wife.

Praise your wife, man; for pity's sake, praise your wife when she deserves it! It won't injure her any, though it may frighten her some from its strangeness. If you wish to make and keep her happy, give her a loving word occasionally. If she takes pains to make you something pretty, don't take it with only:

"Yes, it is very pretty. Won't you hand me my paper?"

It will take you only a moment's time to kiss her and tell her she is the best wife in town. You will find it to be a paying investment—one which will yield you a large return in increased care and willing labor for your comfort. Loving praise will lighten labor wonderfully, and should be freely bestowed.

I called on a friend one day and found her up to her eyes in work. "Oh dear," she said, "this is one of my bad days: everything goes wrong, and I haven't got a thing done."

"Let me help you," I said.

"No, no," she replied, gently pushing me into the sitting room. "I'm going to leave everything and rest a while; but I must just wipe up this slop first," pointing to an ugly spot which disfigured the pretty oilcloth.

Just as she stooped to do it, her husband came in; he didn't see me, but went straight to his wife. One quick look, and he placed her on her feet, and taking the cloth from her hand, wiped up the spot himself.

"There, busy-bee," he said, "you have done enough today. You tired yourself all out getting my favorite dinner. Now, I think I'd leave the rest till tomorrow."

I spoke to him then, and he sat with me a few moments before going down town. Shortly after my friend came in, looking very much amused.

"I guess I was in the dumps," she said, laughing, "for I've finished; and everything came swimmingly since E— came in."—Anna Edwards, in United Presbyterian.

## The Treatment of Hay Fever.

The usual exodus to the Adirondacks and other hay fever regions has begun. The victim of this maddening malady thinks only of flight—the best of all remedies for one of the most distressing complaints in the calendar of warm-weather woes.

The worst feature, perhaps, consists in the fact that there appears to be no permanent cure for the unfortunate beings who are regularly subject to it as each summer comes round. Once it has begun to make its unwelcome appearance, the symptoms not only develop in the same environment with unfailing punctuality, but they frequently increase in severity year by year.

Although fortunately, the season for hay fever—or hay asthma, as some people apply it—is limited to a brief time, yet it makes it peculiarly trying that the "cream" of the summer should be spoiled by this disgusting complaint. It is well known that the catarrh, or violent paroxysms of sneezing, that are the distinctive feature of an attack, is brought on by the odor of certain kinds of grasses. The influence of the pollen seems those once liable to hay fever in such an acute way that it is almost impossible to procure immunity from an attack during the grass-growing season. The mere direction of the wind, blowing the germs from a distant field, is sufficient to prove the exciting cause. There are cases on record where contact with some person who has directly come from a hayfield has proved quite enough to bring on an immediate attack.

The symptoms of the complaint are so plainly marked that they are quite unmis-

takeable. The victim is suddenly seized with violent attacks of sneezing, with perpetual running from the nose and eyes. This will be accompanied by dull, aching pains in the head, a hacking, tearing cough, and violent irritation of the nasal and throat passages. Nor is this all. The general malaise is crowned by intermittent attacks of asthma, which sometimes last several hours and make the unhappy sufferer feel as if he were dying of suffocation.

The length of an attack of hay fever may be from three to five weeks. Under the most careful medical treatment it is often impossible to shorten its duration. And it is not unnaturally further depressed the unlucky sufferer to realize by experience that each fresh attack makes him more susceptible to the slightest infection.

It is curious that a storm of dust will often serve to bring on a similar catarrh to those who suffer from hay fever. It irritates the mucous membrane and at once induces violent sneezing in much the same way as does the pollen from hay and grass.

It is of doubtful comfort to know that the victims of hay fever are more common among men than among women. Many medical men believe that the malady is inherited, and that it is, consequently, found in several members of the same family. It is distinctly a disease of youth, generally commencing in early years and disappearing as old age comes on.

It may not be generally known that hay fever is essentially a malady of the upper strata of society. Its victims are not only mainly recruited from people of refined and cultured surroundings, but usually include many noted for their intellectual achievements. The history of the complaint seems to prove that the more highly the nerves are cultivated by mental pressure, the more susceptible is the system to attacks of this catarrh. Henry Ward Beecher and Daniel Webster were victims of the painful malady.

It is fortunate, however, that the oppress of fate for once are kind enough to spare the majority of those who are most exposed to the infection of the grass seed. A case among farmers or laborers is very seldom heard of.

The best method of cutting short an attack is to play the coward and simply run away from our surroundings. Unfortunately, this drastic treatment is not possible for all of us. But whenever it can be managed by hook or by crook, a week's change of air at the seaside or in the mountains will often cut an attack.

As the great object in change of air is to remove the cause of irritation, it is hardly necessary to say that the utmost care must be taken to choose a place with the proper climatic conditions. A resort should be selected where the patient is removed as much as possible from the source of infection, namely, fields. Cliffs or high rocks will help to keep away the wind which may blow from the land laden with pollen.

The seaside is a cure for many cases of hay fever. Preference should be given to places where the wind blows chiefly off the sea, bringing the pure ozone breezes unladen with any source of irritation. As a matter of fact, the further a patient can get away from land itself the greater is his chance of escaping. If he is fortunate enough to be able to take refuge in a yacht or sailing ship during the critical period, or even to get well out to sea for a few days, he will gain immediate relief from discomfort.

But what about the less fortunate majority, who cannot run away at a moment's notice from the all-absorbing task of earning their bread and butter? However severely he may suffer, the town-bound slave must stick at his post till he drops, unless he wishes to be hustled aside in the battle of life. The only advice to these luckless beings is to "lie low" for a time. Make up your minds to avoid all country expeditions, and confine yourselves as much as possible to the centre of towns. If practicable, it is wiser to avoid going out doors in the hot parts of the day. When a preliminary attack comes on, the masculine patient should at once try the effect of smoking tobacco. The smoking of a cigar the last thing at night has staved off many a threatened paroxysm from men who are subject to the malady. Fortunately, perhaps, for many victims of our sex, there are other remedies which are well known to give relief. Some doctors now believe in the virtue of inhalations of steam. To each pint of boiling water should be added two drops of eucalypti, or, if preferred, the same quantity of camphor, and eighteen drops of pure alcohol. Others have gained great relief by taking homoeopathic doses of tincture of nux vomica three times a day. There are various other alleviations to be tried during the asthmatic attacks, such as inhaling chloroform or taking small doses of sal volatile; but it is wiser not to attempt these remedies except under the advice of a medical man.—Commercial Advertiser.

## The Science of Boiling.

One hundred years ago Count Rumford pointed out that in Munich, where his experiments in cookery were made, water boiled at 209°, on account of its elevation, while in London it boiled at 212°.

This means, according to Bridget, that boiling water is hotter in London when it boils. She thinks that to boil a thing the only way is to boil it hard; the more the boiling water is in her kettle, the more the food is being cooked. To make the water bubble more fire is needed—more fuel is consumed. If you can in any way succeed in the assimilation by Bridget of some common sense in cookery your coal or gas bill will be smaller. Perhaps you might prove to her by an experiment. Place a piece of meat in each of two boilers—equal quantity of water and same weight of meat. After the water in each has become boiling hot, place one boiler over a small flame, and the other over a red-hot cover. The latter will, of course, boil vehemently enough to please Bridget, and the other will keep at a condition where the surface is only spasmodically rippled. She will be surprised that both meats will be thoroughly cooked at the same time, while the latter will be much better cooked. Let it be remembered that violently boiling water is no better than water boiling hot.—Deshler Welch, in Good Housekeeping.

## The Women Who Swim.

Swimming will do more to develop perfect health in women than any other form of exercise. It develops the whole body symmetrically, loosens the joints, gives free action to the limbs. It increases the lung capacity, inducing deep breathing; straightens the frame, throwing the chest forward and the shoulders back. The woman who swims gains all this, and in the gaining has much pleasure.

In the water she is suspended, without the least hindrance to the motion of her body, she can move her arms or legs in any direction and bend the trunk freely. The different methods of swimming, all of which she will learn in time, bring into use all the muscles of the legs and arms.

A swimmer soon learns deep breathing, as a deep breath will keep the body at the surface of the water without the extra effort required by the use of the legs and arms.

The position of the swimmer at first seems strange to a woman; the disease of certain muscles has degenerated them, and when she enters the water to swim she feels no inclination to use muscles which she has not used since early childhood—the muscles of her waist and abdomen. What she does try to do is to make the same restricted motions that she is forced to make ordinarily, the knees together and the little jerky strokes of the arms and legs.

She soon sees the folly of this, however, and in time acquires the long, sweeping, graceful stroke of legs and arms which comes to the proficient swimmer by practice.

Who has ever watched the actions of a professional swimmer and noted the long sweep of the limbs, the recovery of the arms for the new stroke, and the wide, powerful swing of the legs, without a desire to acquire a little skill and power, combined with a like grace of motion.—Macfadden's Magazine.

Why One Foot Is Larger than the Other.

"The question of which foot is first is an important one to us," said the shoe salesman, as he tugged to get a small pair of Oxfords on a large foot. "It may seem strange to you, but it is rarely that we do not experience some trouble in fitting one foot while the other is easily covered. A popular belief obtains that the left foot of every person is the hardest to fit, and consequently many shoe clerks always try a shoe on that foot first. It is not true, however, according to my observation, that there is any inflexible rule as to which foot to try first. It is true, nevertheless, that in a majority of cases if you succeed in fitting the left foot you will have no trouble with the right. My practice is to try both feet before I pronounce a pair of shoes a perfect fit. Then I am sure of avoiding any mistake growing out of peculiarities of foot formation. No two persons have feet formed exactly alike, and the shoe salesman who thinks and is covered accordingly will meet with many complaints."

"For some time I pondered over the problem of fitting shoes to feet, and especially as to why the left foot should be considered the standard by which to be governed. The only rational theory I have ever been able to evolve is a very simple one when you come to consider it. Nine out of ten persons you meet are right-handed, as we say. About one person in ten, or perhaps the percent, is even less than that, uses his left hand. If you will observe persons who use their right hands, you will find them standing and talking, they invariably rest their weight on the left foot. And vice versa, a left-handed person will rest his or her weight on the right foot. The result is that with right-handed persons the left foot is probably a fraction larger than the right foot, and the shoe clerk must inevitably find this to be a fact sooner or later.—New Orleans Times-Democrat.

Pull the Lower Jaw for Whooping Cough.

Jacob Sobel gives the results of his own experience with the paroxysms of whooping cough treated by pulling the lower jaw downward and forward. Pulling the jaw down and forward counteracts the paroxysms of whooping cough in most instances and most of the time. The method is more successful in older children than in younger ones and infants. In cases without a whoop the expiratory spasm with its asphyxia is generally overcome, and in those with a whoop the latter is prevented. It is as successful as any single drug, or even more so. Mothers should be instructed in its use so that attacks, especially at night, might be arrested. The manipulation is harmless and painless. Its only contraindication is the presence of food in the mouth or esophagus. Patients thus treated are less likely to suffer from complications and sequelae than those treated only medicinally. It is advisable to try this method in other spasmodic coughs and laryngeal spasms.—New York Medical Record.

## Domestic Hints.

CUCUMBERS, A LA POULETTE.

Cut cucumbers into sections about an inch in diameter, and trim off the ends. Sprinkle with salt, and twice that proportion of vinegar and allow them to steep in this for several hours. Then pour off all the moisture from the cucumbers, and put them into a steaming pan with two ounces of fresh butter, a little grated nutmeg and a dessertspoonful of pounded sugar, and set them to simmer very quietly over a slow fire until they become quite tender; this will require about half an hour.

A pretty suit of white holland or dress linen has a box-plaited skirt and waist, the latter having all the plaits stitched flat. It blows a little all around. The belt, collar, cuffs and sleeve caps of this gown are piped with bright blue, and are trimmed with small blue buttons. Under the flat stole collar falls a tie with long ends of blue linen ornamented with large, graduated disks of white, hand-sewn.

A perfectly made lace waist is as much of a satisfaction to wear or to behold as an infant in the arms of its mother. The conditions of our life are raised thus by the meaning life has shown to be in them and the grace He has put upon them. The world itself is charged and is no more the same that it was; it has never been the same since Jesus left it. The air is charged with heavenly colors, and a kind of celestial solemnity, a sense of other worlds, is wafted on its breeze. Let society roll backward, let infidelity deny, and what is worse, let spiritual piety dishonor the truth; still, there is a something here that was not, and a something that has immortality in it. Still our confidence remains unshaken,—that Christ and His all-quickening life are in the world, as fixed elements, and will be to the end of time; for Christianity is not so much the advent of a better doctrine as of a perfect character, and how can a perfect character, once entered into life and history, be separated or finally expelled? It was early to untwist the beams of light from the very beginning and expunging one of the colors, thus to get the character of Jesus, which is the real gospel, out of the world.—Horace Bushnell.

The one great need of the world today; the one great need of each individual, is the more actual realization of the personality of Jesus. The perspective of nineteen hundred years only brings more vividly before the mind, more closely to the spiritual apprehension, the personal holiness of Jesus, compelling the truth that shall redeem humanity,—the practical possibility of the increasing achievement of this personal holiness for every man and woman. "Because I live ye shall live also," He said. But what is it to live? Certainly, something far above and beyond mere existence. Life, in its true sense, is to know God. This is the life eternal. No one can "know God" save in the degree to which he lives God's life—the divine life, and in the degree to which he is living the divine life does he live the life eternal. The life eternal may be lived today as well as after death, in some vague eternity. The life eternal is simply the life of spiritual qualities. It is the life in which truth, honor, integrity, sacrifice, patience and love abound, and in which

Out this through the floor with a large knife and mix with half a pint of boiled milk. Work all together lightly until well blended, then turn out on the moulding board and toss until well floured. Roll out to the thickness of half an inch, then cut into two rounds of equal size. Grease a baking pan and put the rounds of paste upon it, one on top of the other, spreading the under layer lightly with butter. Bake in a moderate oven. Then tear the rounds apart, divide the fruit into two portions, mash one lightly and sugar well, place over the lower round of crust, cover with the upper round, and in top of this arrange uncooked quantities of berries. Serve warm with powdered sugar and plain or whipped cream.

Hints to Housekeepers.

Shredded lettuce with balls of cream cheese is a delicious salad. French dressing is served with it.

To make a delectable dessert for six people use one pint of berries, one tablespoonful of butter, two eggs, half a cupful of milk, ½ cupful of flour and one large teaspoonful of baking powder. Beat the butter to a cream and the eggs until light. Then mix the two together with the flour and stir in the flour. Grease or butter a deep pudding dish, put the fruit in the bottom, cover with the batter and bake until the batter is well cooked. This will take from a half to three-quarters of an hour. Serve with the above described sauce.

An old farmer gives this recipe for a fly and mosquito-baiting ointment: One part pennyroyal, two parts castor oil and three parts fine tar. Rub the mixture on exposed parts of the skin when insects are ravaging.

An old frame may be made to look much like the original gable by using one of the cheap pine shingles and following it with a coat of transparent varnish.

Some people actually attract illness to themselves by constantly thinking about it. They feel sure that if they should happen to get their feet wet they would soon be laid up with pneumonia or influenza. If they happen to be in a draught for a few minutes, they are confident dire results will follow. They will have chills or sore throat. If they cough a little they have dreadful visions of consumption. It is not in the family? They thus make themselves ill in the mind, and so lessen its power of resistance to disease and make the body more susceptible to the very things they fear.

The ice-cream sandwiches sold from push-carts furnish a hit for the family table. Why not make them at home? Take one of the cheap cakes out of squares with all the crust whipped cream would be an addition.

Green bananas are easily procurable, and if cooked as in Cuban kitchens, they can scarcely be distinguished from Saratoga chips. The fruit is cut thin and fried in smoking-hot olive oil or the usual hot lard.

In choosing a wall paper for a small room the effect of space can be secured if a pattern with a perspective is selected. Any design in which a part of the pattern seems to stand out will give this effect, though care must be not to have too bold or too large a design.

Summer squash is a delicate vegetable, and one not served often enough on the average table. It contains little real nutriment, but is one of those vegetables whose mission it is to assist digestion of other food, and to afford that which helps the appetite. If neither alcohol or vinegar can be used, if neither green, or green of cooking it, two squashes will suffice for an ordinary family. Wash and pare them and cut into square pieces. Put the pieces into boiling water and cook for twenty or thirty minutes. Drain off every drop of water and beat with a potato masher until quite smooth. Stir into the squash a small cupful of milk, a tablespoonful of melted butter, two beaten eggs, pepper and salt. Better still, stir all these together, and add to the squash after mashing. Turn into a buttered dish, sprinkle with breadcrumbs and bits of butter, and bake.

All sorts of stings—whether from wasps, bees, hornets or bumblebees—should be sucked, to remove as much poison as possible; then have a piece of acid fruit, tomato, peach, or a crushed berry, or grape, either ripe or green, bound lightly to the spot. If the pain is very severe after a minute take off the fruit, wash the sting in warm water, and bathe it well in alcohol. Then wet a folded linen rag in either alcohol or vinegar, and bind on the sting. If neither alcohol, vinegar nor fruit of any sort is at hand, try a bruised plantain leaf. Change the application, whatever it is, every ten minutes until the pain subsides.—Good Housekeeping.

Fashion Notes.

The number of brown hats among the latest importations is notable, and is an indication of the vogue that color is destined to become when the new fashions are shown. A charming hat of deep tan-colored straw is bent into a three-cornered shape almost like a Conestoga hat. A band of brown ribbon lifts it from the hat, and a dashing cockade of brown ostrich tips and an egrette trims the hat on the left side.

A white parasol is the prettiest of adjuncts to a summer gown, but as a sunshade it is a doubtful success, and the woman who buys one for practical purposes as well as for adornment makes a mistake. She is sure to be the warmest looking one of a group, as the glare of the sun through a white parasol is greatly intensified. The same is true of pale blue and pink parasols. The greens are better, the dark shades being coolest of all. Black chiffon parasols are also cool, and are light to hold—an additional recommendation.

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The World Beautiful.

Lillian Whiting, in Boston Budget.

"Let us note distinctly the significance of this glorious advent. Jesus, the Christ, this one perfect character, has come into the world and lived in it; filling all the moulds of action, all the terms of duty, and love, with His own divine manners, works and charities. All the conditions of our life are raised thus by the meaning life has shown to be in them and the grace He has put upon them. The world itself is charged and is no more the same that it was; it has never been the same since Jesus left it. The air is charged with heavenly colors, and a kind of celestial solemnity, a sense of other worlds, is wafted on its breeze. Let society roll backward, let infidelity deny, and what is worse, let spiritual piety dishonor the truth; still, there is a something here that was not, and a something that has immortality in it. Still our confidence remains unshaken,—that Christ and His all-quickening life are in the world, as fixed elements, and will be to the end of time; for Christianity is not so much the advent of a better doctrine as of a perfect character, and how can a perfect character, once entered into life and history, be separated or finally expelled? It was early to untwist the beams of light from the very beginning and expunging one of the colors, thus to get the character of Jesus, which is the real gospel, out of the world.—Horace Bushnell.

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Certainly, it was not for nothing that Christ came into the conditions of the human life. His experience on earth comprehended every privation, every limitation, known to the physical world. He was tempted,—but He experienced every phase of sorrow, of trial, of mental pain, of spiritual anguish. He was misunderstood, He was misrepresented, He was assailed and crucified. He understood the needs of the body as well as of the spirit. He had no contempt nor condemnation for comfort, prosperity, or wealth, in and of themselves. He simply regarded them as means to an end, and the better the means the more factors of power it possessed. But He taught the truth that here we have no continuing city; that this temporal sojourn on earth is designed as a period in which to develop qualities rather than to heap up accumulations. "What shall it profit a man," He said, "if he gain the whole world and lose his own soul?"

So here was a man, living the earthly and physical life, conditioned by the earthly and physical problems involved in relation with the physical world, not ignoring or denying them like a mere fanatic, but estimating them in the true scale of values,—here was a man who by his experience and example, proved that personal holiness of life is not incompatible with personal attention to every detail of human affairs. Jesus did not isolate Himself in a monastic cell in order to live the life of the spirit. He practically taught that the very furnace test of the life of the spirit is to live in the heart of human activities. It is in the restless tide of daily affairs,—in the office of the lawyer, the journalist, the physician, the architect; in the studio of the artist, the counting-room, the bank, the sales room, and the market-place, that the life of personal holiness is possible, and it is possible to the human life, so lived it in these very circumstances and under these conditions. Christ and His all-quickening life remain in the world. They did not leave it with His physical death. They remain as the incorruptible, the glorious, the priceless possession of every man and woman today. To this divine example of a perfect character revealed in the guise of the human form, each individual in the world today can turn, for the most practical ideal by which to shape his own life and to ultimately realize the divine command. "Be perfect, even as your Father in heaven is perfect." If this transcendent ideal were not a possibility for the soul, surely God would not have given it as an ideal command; but man, as a spiritual being, is designed to live the spiritual life, and this life is that of perpetual spiritual progress and ideal achievement. The Brunswick, Boston.

Germany has on an average of 300 orchard trees to the square mile.

The old hermit, Paladius, having five hundred scholars, used never to dismiss them without this admonition, "My friends, be cheerful; forget not, I beseech you, to be cheerful."—H. Scougal.



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## Poetry.

**THE THUNDERSTORM.**  
Ready and slow comes down the rain,  
And rumbles o'er the plain;  
And clashing, flashing down, the drops  
Come clattering o'er the dark treetops;  
With slanting tread, full, swift and broad,  
Ride beating down upon the road,  
The dust flies out like steam.  
The storm now hush and harsher grows,  
The rain now fast and faster flows,  
The hosts of darkness lowering close,  
Now the swift lightning gleam.  
A flash falls o'er the earth again,  
As 't were wreathed by pain;  
Then wild and dread with bursting tread  
The crashing thunder stamps overhead.  
The sounds roll backward long and fierce,  
All the wide world of waters pierce,  
A thousand echoes downward shout,  
The hills take up the tones about,  
Till mumbled, rumbling in their sound,  
They rolling strike the horizon round,  
And, growing fainter, lose behind  
The prison of the rain and wind.  
A sudden gust is onward tost  
And, sweeping onward, on, is lost;  
Then wild is hied a bursting tide,  
As if all heaven were opened wide;  
And rolling, beating, fierce and fleet,  
Rides sweeping down each liquid sheet,  
The clashing rain-flood downward pours,  
And wave on wave, and shock on shock  
The tempests beat, the freetop rock,  
The windows rattle, the windows quake,  
Battle the doors, the house walls quake,  
The following thunders o'er us break.

The storm now reaches to its height,  
Now blazes lower the murky night.  
The blue-tinted lightning flash more bright  
And cleave the dark in twain,  
And still within the black  
The walls of heaven seem to crack  
And fling their yells of ruin back  
And pealing forth, as on the earth  
They bring a chaos into birth;  
But that the wrath within them pent,  
Though laboring still, can find no vent,  
But labors bursting till 't is spent.

J. A. EDGERTON.

## SUNDAY.

On Sunday no alarm shock  
To work! 't beats on the tired brain:  
What bliss to wake, to scorn the clock,  
To smile and go to sleep again.  
And joy goes dimpling through the town,  
On heartstrings her sweet tune she strums,  
And care-worn brows forget to frown,  
When Sunday comes.

On Sunday there's no breathless haste  
To mill or mart on tireless legs;  
And oh, how beautiful the taste,  
Of leisure in the ham and eggs!  
To munch your breakfast at your ease,  
To eat at time and snap your thumbs—  
You only get such joys as these  
When Sunday comes.

When Sunday comes the little girls,  
Before the glass with huge delight,  
Take out of jail the little curls  
That they have had in pins all night.  
The little boys don't Sunday best,  
Which Freddie's aunt says is a sin;  
By clean collars they're oppressed  
When Sunday comes.

When Sunday comes how grand to sit  
(When you may dine among your kin)  
To read a bit, and doze a bit,  
Until they bring the supper in,  
With music of the jingling spoon,  
And saucer, while the kettle hums,  
An extra pleasure, for me,  
When Sunday comes.

When Sunday comes with what a glow  
A man may puff his pipe and say  
(As Horace said some time ago)—  
"Lord of myself I live today!"  
So here to Sunday, three times three;  
With glad heart's inward fires and drums;  
And—keep a corner place, for me,  
When Sunday comes.

## ANIMAL DOMINIUM MEAL.

Sweet is the honey in the comb,  
Sweet is my life to me,  
Sweet are the treasured thoughts of home,  
Sweeter my love for thee.

Strong are our passions, hard to break,  
Strong is the tide at sea,  
Strong are the hopes that youth can make,  
Stronger my love for thee.

Medicine of life when seems spent,  
A priceless treasure, 't is my key,  
Half of my soul and heart's content,  
Such is my friend to me.

—F. J. C. P.

## HOW THE CAT FORMED A NEW ATTACHMENT.

'T was only a harmless looking sheet  
Of sticky paper. Warned by the heat  
Of the room it felt that she lay  
And she felt it her duty to stay.  
A careless maid had placed it there,  
Its gleaming surface innocent of fear.  
As yet, an altar for the sacrifice  
Of victims to the greed of housewives neat,  
Waited for unwary feet.  
Which came—O, yes, they came. The cat,  
A stately creature, sleek and fat,  
Pride of the household, happening along,  
Purring its contented song,  
Leaped lightly in the air  
And came down upon that chair.  
Here the plot thickens. Down again  
Upon the floor she jumped, and then  
Tribulation, anguish, woe,  
Panic, terror, for, lo,  
That sticky paper stuck to Tabby's paws  
And tripped her. Nose, ears, whiskers, jaws,  
Smothered with the goo, she rolled along the floor,  
And smeared herself some more.  
And howled and roared,  
Like a wild prizefighter,  
And the paper stuck still tighter  
And wrapped itself like a warm  
And clinging blanket round her squirming form.  
With maddened crouch and yell  
She flopped and jumped and fell.  
And clawed her feet  
Through the sticky sheet,  
And tried to pull it off her head.  
In vain. It wouldn't budge.  
In vain she squirmed and tore,  
And scratched, and screeched, and swore,  
'T was time to stay. And Tabby changed her  
mind.

With bristling tail straight up behind,  
She made one desperate jump,  
Went through the window, fell outside herump,  
Then through the grass, rank, thick and wet,  
Ran off, and people say she's running  
—G. W. T.

## Miscellaneous.

**The Influence of Josephine Carr.**  
The young husband looked down at his pretty wife. He had enjoyed a good dinner and was in a reasonably contented mood. At least he should have been.  
"Come, come, my dear," he said in a brusque way that was quite foreign to him, "you know I don't believe in it. I don't object to your amusing yourself in your own way—and this is only a fad, but you can't expect me to join you in chasing after a set of long-haired cranks whose antics—"  
"Why, Fred, how can you! Do you call Josephine—"  
"Oh, Josephine—well, she's your friend and of course a very advanced young woman. But, Dolly, I sometimes doubt the advantage of her influence over you."

"Fred, you old stupid! Why, Josephine is brilliant and cultured, and she has gone into mental telepathy because it's so developing. That's all. I just wish you could hear her talk about thought crystallization and irresistible attraction."

"But that's just what I want to escape. And that's why I must be excused from attending you to the séance—sitting—whatever you call the obsequies—this evening. You know how I follow you—tolerantly—and sheepishly—to those Browning and Emerson clubs, and through a Chautauqua course, and groveled in mental science, I draw the line at this thing. It is hypnotism, pure and simple, whatever they call it, and that's a dangerous thing to dabble in, though I doubt if any of you will learn anything more harmful than the singing of polysyllables and meaningless phrases."

There were real tears in the little wife's eyes as she slipped on her pretty hat before the mirror. She did so with a sigh of sympathy with her.

"It is just because you are so material," she petulantly exclaimed. "If you would only put your mind into an attitude of receptivity. That's all you have to do. And the professor will be there tonight, and oh, Fred, he is a wonder! He's a theosophist and a hypnotist, and occult and mysterious, and his name is Caspar Apollonius. Isn't that soulful?"

"Soulful? It's a mouthful. But there's the door bell. Miss Carr has come for you. I'll sit up and hear about it when you return."

Fred Armistage was a devoted husband and usually gave a seemingly cordial approval to his wife's "enthusiasms," as he styled her fads, but this latest search for wisdom in the realms of the occult was a little more than he could stand. He was a theosophist and a hypnotist, and occult and mysterious, and his name is Caspar Apollonius. Isn't that soulful?

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empty he begged her to have it refilled. And there is no doubt Josephine ate a great deal. Dolly, whose own appetite was as the emerald order, was astonished at Josephine's capacity.

It is a wonder, then, that the conversation languished—or that it took sudden flights into extremely practical fields. Dolly could see that Fred was disappointed over his inability to draw Josephine out. But this didn't prevent him from doing his best to please her palate.

And then, after they had left the table and withdrew to the easy library, with its restful dints and dim lights, and Fred seated himself near Josephine, and the moment was ripe for some utterance, even then Josephine seemed strangely distraught. Once she even yawned.

And Fred, evidently determined he wouldn't be discouraged, talked on and on, in such a steady monotone that Dolly felt like yawning herself. And Josephine replied only in monosyllables and presently did not reply at all. And then Fred held up his hand, and pointing at Josephine, where she had reclined almost as if she were asleep, he said softly to Dolly: "She is communing with her inner consciousness."

"She is asleep," murmured Dolly, a little sharply.

Perhaps she was. Anyway, when she suddenly straightened up and asked what time it was, and Fred told her the declared she was right, and added that she had enjoyed such a soulful evening. And Dolly, with her mind on Josephine's expert performance at the dinner table, felt that soulful was scarcely the word for it.

But Fred caught her eye and frowned. Perhaps he read her thoughts.

Anyway, she could see that he was greatly disappointed.

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passages, which abound in that charming old ballad, when—  
"Oseoboom! Oseoboom!" The voice came from a chubby little prince of four years, who, sitting on the floor, with long, golden curls, and a suit of crimson velvet. "Please tell me a story."

"Why, indeed, I will, my precious," cried the princess, catching her baby brother to her and kissing him on his pink cheeks.

Then the tiny prince listened eagerly while she told him such a fairy story about owls and dewdrops and stars that his eyes grew bigger and bigger, his mouth wider and wider, until he soon fell asleep in her arms. Then the nurse came and took him away.

The princess was about to pick up her book again, when the queen, her mother, called from the next room:  
"Rosebloom, I wish you would come there and make this silk for me. I can't sew very well."

The queen was doing a bit of embroidery in orange and yellow and blue, and the princess was trying. Quick as a flash the princess threw down her book and ran to fetch the silk. Coming back to her divan, she cast one longing look at her dear book, but resolutely shook her head. "No," she said, "I shan't read any more now. It is time to practice on the lute." So she lightly skipped down the marble stairs, and had just taken off the velvet cover from her lute when her father appeared at the doorway.

"You will oblige me, my dear," said the king, "if you will put that cover on again. The court chamberlain and I have been very busy, and my head aches fearfully."

"Very well, my majesty," said the princess, bestowing "I will set up early tomorrow and practice."

What an exquisite disposition our Rosebloom had! She kept the queen that afternoon as if she were a child, and she wiped their wine over the chessboard. "It is your training, my dear."

"Yes," sighed the queen, "but I do wish she were a little prettier." (Somewhere, away off in the mist of her imagination, the queen had been a vision of a rarely beautiful daughter.)

"Oh," cried the king, taking a pawn with a sweep of his bishop, "not for the world, my dear, not for the world! He was thinking of the little girl who lived in the castle of the neighboring castle, and who caused her parents so much trouble that their hair was already quite white under their crowns, and the wrinkles thick about their eyes. No, Rosebloom is lovely just as she is, just as she is."

Princess Rosebloom did not hear her father's remarks, though she felt that she was loved even tenderly from that hour. But a soft zephyr blowing through the palace from the gardens behind her bore the words of her father's words. (Where the echoes of the little princess's merry, rippling laugh had passed that morning, you remember?)

And the clouds, which hovered around the globe in the night, the night of the night, were especially beautiful that night in their tints and shimmering radiance.—Virginia Lella Wentz, in New York Tribune.

## A Snake Pill.

The most atrocious cannibal among all the snakes is the king cobra. The sight of this snake feeding is not one for sensitive nerves. In its natural state this monarch of reptiles contented himself with lizards when better offered; but when captive he declines to touch food but the morsel of a squirming snake. The foot snake. The spectacle of a frightened "black racer" being introduced into the cage would be more pitiful were it not that he himself is a cannibal. For an instant the dread brown giant reared his head at the corner of the water tank at the doomed one, who has not a chance in a thousand in his favor. But he makes a single frantic attempt for his life. His motion is lightning. Cornered hopelessly as he is, he whips out like a cobra of light in the effort to coil round the enemy's throat to choke him. But the cobra is quicker still. One dart—too quick for the human eye to follow—and the black head is between the retreating jaws, which, with their back teeth and alternating outward and inward motion, steadily draw the fighting, squirming thing inward. Gradually the food is swallowed, with frequent pauses for breath and with halts to repress the squirming and fighting of the prey struggling inch by inch in the throes of a living death. This is the meal of the cannibal snake, whether he be fed with live food by the hand of man or whether he hunt in his own lair.

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## The Horse.

### Feeding Draft Horses.

The following is the plan of feeding practiced by some of the leading breeders: For the morning feed give about six quarts of oats. At ten o'clock give a feed of carrots. At noon give a feed of ground oats and chopped hay, with a little salt. Again in the afternoon give a feed of carrots, and at night feed the oats the same as in the morning. Very little corn should be given to the breeding stock, because it is inclined to make them sluggish. The imported horse should not be given corn, because it causes his blood to become impure and weakens his constitution.

The breeding of good draft horses for market is a profitable business, but do not breed draft mares to light stallions, or light mares to draft stallions and expect to get a horse that will sell well. Breed draft horses or breed roadsters. J. N. PRICE, Columbia, Mo.

### Endurance and Quality.

The connection between a horse's staying power or endurance and its quality is frequently seen when subjected to severe road work, but the reason for the connection is not so plainly evident. The fine skin, that is one of the features of high quality, is considered to be of value for what it tells of the internal organization of the animal, for it may be said, in a general way, that the one skin covers the horse internally as well as externally.

The inner coat of the skin which covers the ribs and all external parts is a continuation of that which lines the stomach and intestines. If the skin covering the internal region is soft, fine and pliable it indicates that the secretions are healthy and it would seem natural to reason from this that the lining of the stomach would be in the same state, and if such is the case it is in a better condition to digest the food that goes into it, thereby increasing the horse's recuperative powers and endurance. —John A. Craig.

An easy and satisfactory method of opening a horse's mouth. The two thumbs are inserted just back of the incisors and the lower is pressed down so that the horse drops the lower jaw. It is usually easy in this way to make observations regarding the teeth.

To hold a horse's foot firmly without much effort, the proper plan is to hold by the toe with the foot doubled against the elbow.

Over-feeding renders the horse slow, lazy and predisposed to disease, and, therefore, what is wanted is so to feed horses that they shall be in condition for work. Anything consumed by a horse in excess of his requirements for the repair of waste, and the maintenance of condition is food—and, therefore, money—wasted, and thus individual requirements, which vary in horses as in men, should be carefully studied.

An Indianapolis pacer with a trial of 2.14 weighs 1475 pounds.

The California Circuit will open at Vallejo Aug. 13, and three days racing will be given, closing on Saturday, the fifteenth. The following week the Grand Army encampment will be held in San Francisco, and as excursion trains from all points will be run to the metropolis that week, no district association will hold a race meeting. On Wednesday, Aug. 26, the Pacific Coast trotting horse breeders will open their big annual meeting at Petaluma. It will continue four days, ending Saturday, Aug. 29. The following Monday the California State Fair will open at Sacramento, during which there will be two weeks of racing as usual, closing Sept. 12.

Mr. L. V. Harkness, proprietor of Walnut Hill Farm, "will not have a pacer in his stable or on his farm." Senator Stanford gave orders that colts that would not trot but insisted on pacing should be allowed to walk.

The starting papers have been made on twenty-nine three-year-olds, twenty-three two-year-olds and seven pacers in the Horse Review Futurity to be decided at Cincinnati Sept. 23-Oct. 3. Thirty-six of the trotters are by sires with standard records and all of the pacers.

No horse will be classed as a thoroughbred that has less than five unaccounted crosses. That is, every animal in his pedigree within five removes must be a thoroughbred or recorded as such in the American Stud book or in a recognized stud book of another country. In the tabulation of a pedigree to five removes there are sixty-two ancestors. All must be thoroughbreds or recognized as such before the horse can be called a "five-cross thoroughbred" which is a term not generally used, however.

The pacer, Elastic Pointer, the own brother to Star Pointer (1894), that paced a mile last season in 2:04, but that, on account of being a bad actor, failed to win a heat in any race in which he started, promises to fulfill some of the expectations his great speed aroused, says Trotter and Pacer. John Hussey, who worked patiently on him all last season and all winter, has at last got him shod so that he no longer hits his knees while going around the turn of a track, and with that fault overcome the horse no longer acts in the erratic manner which spoiled him for racing last year. Hussey has him at Louisville, Ky., and he is acting so well in his work that he really looks for him to pace to a record close to two minutes before next fall.

For sores in colts, mix powdered charcoal and prepared chalk equally, and put a spoonful where the colt can lick or eat it at will. Also give twice per day five drops of nuxvomica; give this on the tongue. Let the colt out in the field, where it can have a little short pasture and get to the ground.

Notes from Washington, D. C. George Washington was an active member of the first society for promoting agriculture organized in the United States, in 1793, at Philadelphia. In his message to Congress ten years later he said, in pleading for a national board of agriculture:

"One of the functions of such a board is to encourage and assist a spirit of discovery and improvement by stimulating enterprise and experiment."

Herein lies the kernel of the Government experiment station idea, but it was not until 1887, over a century later, that the Hatch Experiment Station bill became a law.

Cattle breeding for dairy products has made immense strides forward, said one of the dairy experts of the Department of Agriculture to your correspondent. "We are apt to consider that a good milch cow

is simply the result of keeping the blood pure; but we should not forget what the type of that pure blood represents—patient breeding and careful and intelligent selection and improvements for years and decades. Some aged farmers and dairymen can remember when a cow that made a pound of butter a day for two or three months during the year was a local celebrity. The first good record of definite herd improvement was made by Zadock Pratt of Green County, N. Y. By careful selection and elimination of poor members of his herd he increased the average annual butter product of his own from 130 pounds in 1832 to 225 pounds in 1863, and to an accompanying milk yield of over 4500 pounds per cow. The common cow which does not average this figure now is not considered profitable, and whole herds average as high as 350 pounds of butter a year, while there are cases of our own producing two pounds of butter a day.

Although much is due to the English Shorthorn for the improvement in American dairy blood, the Scotch Ayrshire, the Holstein Friesians from Holland and the Jersey and Guernseys from the Channel Islands are the breeds now generally recognized as of greatest dairy excellence. The Ayrshires and the Holsteins, as is well known, give large quantities of milk of medium richness, but the other two breeds—both often mislabeled Alderneys—give the richest milk and are the favorites with buttermakers.

While pure-bred cows probably form not more than two per cent. of the working dairy herds of the country, their influence is so great that it is believed that the average dairy cow of the United States carries nearly fifty per cent. of improved blood. With the presence of pure herds in every State in the Union, it has become a comparatively easy matter for every dairyman to breed up his herd, gradually more nearly approaching purity every year, and in this practice lies his greatest certainty of success and profit.

Dairying is considered today one of the most prosperous and highly developed forms of farming, and no branch of agriculture has made greater progress during the last generation. In 1890 the price of cheese was ten cents a pound and farmers were afraid to engage in such an industry, believing that overproduction would result. In 1890 cheese exports were ten million pounds; in 1875 they were over one hundred million pounds. Present cheese exports are not large owing to the foreign market having been ruined through the shipment of "filled" cheese by unscrupulous exporters; but the annual production and consumption of cheese, as is likewise that of butter and milk, is constantly increasing.

"One of the most popular publications of the Government has proved to be Farmers' Bulletin, No. 170, recently issued, describing the care and feeding of horses," said one of the clerks of the publication division of the Department of Agriculture, as I drifted into that room the other day.

"Why don't you issue a farmers' bulletin on the care and feeding of automobiles," I said, with a weak attempt at humor.

"That is not at all a joke," he rejoined. "The good roads division is gathering some material on automobiles. The automobile has become something of a factor in farm life, and when the roads question is considered there is a distinct bond of sympathy between even the wealthy city automobilist and the struggling farmer. Each would appreciate improved roads, though for somewhat different reasons, one to promote his pleasure, the other to gain a better livelihood."

As a matter of fact, however, the automobile will be all over the country before long. Talking with a representative of a prominent gasoline automobile manufacturer the other day, he said to me: "We are getting the lines on a machine which will be a really practical thing for the well-to-do farmer, a machine which will cost not more than double the price of a good wagon and a first-class team of horses, but which will do three times the work, but which, of course, be a seventy-mile-an-hour affair, such as were used in the recent Irish race, but it will have an average gait on good roads which it would kill the best horse to go for ten minutes. In sections where the roads are good this working machine will, I think, have quite a sale among prosperous farmers. I understand that the present cost of automobiles is somewhat prohibitive for farm use, but they are getting cheaper and cheaper every year and it will not be long before they are down where they will

be a really profitable investment. Of course I realize that they will never take the place of the horse in any sense any more than the railroad or the bicycle has done away with him as was often predicted would be the case.

The Department of Agriculture has begun its experimental foreign fruit shipments for the season.

"A shipment from Delaware left New York on the 11th inst.," said W. A. Taylor, assistant pomologist, "with fifty carriers of Red Astrakhan and fifty carriers of July Fourth apples. They went to London by refrigerated express, and will be sold there about the twentieth."

The Department is confident that a lucrative market in London will be established. This carrier, which is the regular six-basket peach carrier with iron corner clasps, for greater strength, and with wrappers and pasteboard sheets for packing will cost about twenty cents, and the freight charges from New York to London, refrigerated, will be approximately thirty-five cents (on any kind of fruit)—a very low rate when it is considered that the regular express rate, non-refrigerated, from Dover to New York is fifty cents.

"In the same shipment," said Mr. Taylor, "110 carriers of Thurber peaches from Georgia were sent. We are sending out today a similar shipment of apples from Delaware and of Georgia peaches in carriers and also in twenty-pound packages, to test the relative merits of the two styles of packaging."

If the express companies can be induced to make a low export rate from points of production to New York, refrigerated, with the low ocean rates which have been secured by the Department for exporters there seems no reason why an enormous export trade in our better class of fruits cannot be built up in London and other British markets.

Mr. Taylor is doing excellent work. A talk with him shows his mastery of the many peculiarities and details of the export fruit trade. For instance, it is useless to put up fruit in fancy small packages, as the Englishman never buys by the package, always by the dozen or weight. Mr. Taylor, too, is no theorist, but a practical and successful peach grower from the Michigan Lake peach region (near St. Jo) where he and his father raised peaches for years in the same county where the writer and his father lived on a twenty-acre peach farm.

GUY E. MITCHELL.

Butter Industry in Argentina.

The price of butter at the creameries here may be estimated—allowing a good margin of profit to the dairyman—at about sixteen cents in United States currency per pound.

At retail in this city, the average price of butter per pound in December for the years 1890-1902 has been from 18.4 to twenty cents.

From these figures and from a study of railroad rates for the transportation of butter, it seems safe to fix the average price of Argentine butter f. o. b. at eighteen cents per pound.

Argentine butter has improved in price in the London market very rapidly in the last three years, until it now stands second as regards demand, and that the average price, approximately twenty-four cents, leaves a high rate of profit to the Argentine exporter.

It is only natural, therefore, that the dairy industry should be increasing rapidly in importance here, and that it should ultimately reach enormous proportions. By conservative estimates the average yield of milk cows is four quarts per day. Assuming that there will be 250 milking days per year each cow will give one thousand quarts of milk annually. With improved machinery, this milk will yield from 3.2 to 3.3 per cent. of butter, or, say, sixty-five pounds per year.

At this rate the amount of butter exported during 1902 (9,021,026 pounds) would represent the yield from 138,000 cows, or thereabouts. Unfortunately, no statistics exist with regard to the home consumption of milk and butter; consequently, no very accurate estimate can be made of the number of cows now in use for dairy purposes in the Argentine Republic. Assuming that there are 700,000—apparently a fair estimate—there remain about eight million cows which could be utilized for dairy purposes.

The average profit of a small creamery may be estimated at say twenty-four per cent. on the capital invested. Allowing for some exaggeration in the estimates of yield, one can safely put the profit at twenty per cent.

Such is being done toward improving the breed of cattle in this country, and the milk-producing stock will doubtless soon be greatly bettered. The Shorthorn or Durham breed is the principal base for the crossing of Argentine cattle and will in a few years predominate on the estancias, or estates. The splendid results obtained from the Durham breed for dairy purposes are well illustrated on the ranches of Messrs. Santamarina at Tandil. In a little less than six months, five thousand mixed Durham cows have been tamed. From these, 3750 good milk cows have been obtained, each giving an average of over four quarts a day. In a short time all five thousand will be giving the same results, and the dairy will produce 330,000 pounds of butter per year.

Some of the leading farmers have tried crossing the Durham and Flemish breeds and have obtained excellent results. The dairy industry is now spreading from the Province of Buenos Ayres to other parts of the Republic: Cordoba, Santa Fe and Entre Rios are all going in for the business. Large orders are being placed with importers of dairy machinery.

EDWARD WINSLOW AMES, Consular Office, Buenos Ayres, May 18.

Buttermilk Six Years Old.

Mr. M. C. Balkcom of Owensboro, Ky., believes it has been thoroughly proved that milk can be preserved six years or longer without chemical treatment. One of his friends tells how it was proved, and Mr. Balkcom says his friend's word is not to be doubted.

The friend is a farmer living in Trig County, Ky. He says six years ago he was in the habit of keeping a jug of buttermilk in a well to drink during the day. One morning he let down the jug and the string broke. The water was too deep to think of fishing for the jug, and it was allowed to remain where it fell. Recently the well was cleaned out and the jug was found. In order to see what was the condition of the milk, the jug was uncorked and the milk was tasted. It was said to be just as good as it was the day it fell into the well.

Among the Farmers.

The real reason, I am convinced, why the young and vigorous life seeks the town is because of the life, movement, amusement and intellectual activity of the town. These young men and women have heard something about life and movement, and they very naturally desire to see something of it for themselves.—B. M. Buchanan, Littlefield County, Ct.

The boy who remains on the farm may be as successful as the one who chooses his field of labor elsewhere. He may not amass so large a fortune; indeed, he may be in but ordinary circumstances, and yet be, in the truest sense of the word, a success. True success is not to be estimated in dollars and cents, but in the development of character within himself and in his service to his fellowman. All things considered, the chances of the farmer boy for success are better than those of any other boy if he will but make the most of the opportunities within his grasp.—F. S. Doak, Pennsylvania.

The great trouble with the farmer of today is the extravagance of the age. Seventy-five per cent. of the people live beyond their means. Through the extravagant ideas of the times the taxes are being steadily increased, and the rate in some of our suburban towns, which used to be \$5 on a thousand, is now \$20. The farmer should get a larger proportion of what his goods are really sold for; he disposes of his produce to the middleman, and the middleman gets more for handling it than the farmer does for raising it.—Varnum Frost, Middlesex County, Mass.

To fertilize a pasture I would apply in the spring three to four hundred pounds of phosphate and then each year a modest amount of nitrate of soda, the first time one hundred pounds or more and then but little. Our soils are generally rich in potash, but I would put on a little.—J. B. Sanborn, Gilmanston, N. H.

I regard my farm as a savings bank into which I put the labor of every day, and it is a sure accumulation for my family.—M. Sullivan, Essex County, Mass.

My stable has just burned with all its contents except the horse. Lightning hit the eave. Your recent (July 17) issue is as full of good reading as an egg is of meat.

I sat down to look over my mail this morning and took up the PLOUGHMAN, stuck to it till I read about all, and I really have

not had such a treat for a long time. I was especially interested in an article on the silo and also one on grafting chestnuts. I have a couple of chestnut trees that I have had grafted twice, but they fail to live. The scions all seem to start well and some of them grow a foot or more and then die. I have followed the directions as closely as possible, but as yet have failed to make a success of it.—D. H. Thing, Auburn, Me.

Encouraging Prospects.

The haying season is just fairly commencing, with the promise of an abundant harvest of the best quality, and with the present fine weather the crop will soon be safely housed.

Corn is uneven and backward. The first of June it did not seem that one would get half a crop of hay, so it may be with corn and other crops. The pastures are fresh and green. The farmers need not feel discouraged with their barns filled with hay.

ANNA C. CLARK, West Westminster, Vt.

Massachusetts Horticultural Society.

The recent flower show at Horticultural Hall, Boston, attracted notice for the size and novelty of the displays.

In the main hall the vases on the foot of the steps to the loggia were occupied on one side by a collection of garden flowers from the greenhouse of W. J. Clemens of Taunton, and on the other by a most effective lot of *Monarda didyma*, bordered with a camellia, shown by Col. J. H. Woodford of Goodell Farm, Wrentham. Thirty vases of delphiniums, shown by William Whitman of Brookline, occupied a position on one side of the hall, and below these were thirty vases more from the greenhouse of Mrs. John L. Gardner of Brookline. Across the hall was a collection of about one hundred varieties of annuals from the Bice Hill Nurseries of South Braintree.

The collection of roses shown by M. H. Walsh, the well-known rose grower of Woods Hole, was remarkable for three new introductions of ramblers of remarkable beauty. The most striking was the hybrid Lady Gay, a beautiful pink in color. Beside this was a new, white rambler, the Sweetheart, and beyond a new variety of the crimson rambler, La Flamma, with magnificent foliage.

Edward S. Colburn of Westford had a choice collection of native plants, many of which were from York Beach, Me. The lot included a specimen of the yellow thistle, which has never before been reported from Maine, and which attracted much attention.

In fruits there was a splendid basket of the new seedling strawberry, the Commonwealth, shown by William H. Monroe of Beverly, the finest of all the latest strawberries. Warren Heustis of Belmont had a basket of fine Belmonts. W. J. Clemens had fine red currants and gooseberries. Nora Chapell of Dorchester had cherries, and E. J. Cutler of West Roxbury showed raspberries.

Of vegetables there was a fine display. William Whitman had a collection of string beans of splendid quality. Warren Heustis & Sons, W. J. Clemens and George D. Morse showed cabbage. A. E. Hartshorn took first prize on white string beans, second going to J. C. Stone, who took first on summer squashes. Hon. Aaron Low of Hingham had two promising varieties of seedling potatoes. Joseph Thorpe took first prize on peas, second going to E. L. Lewis of Taunton, who took first on onions. A fine plate of tomatoes was shown by A. E. Hartshorn.

Considerable business was transacted at the regular quarterly meeting of the society July 11. Kenneth Finlayson read a memorial to the late Benjamin Gray of Malden. Nine deaths were reported since the April meeting, and accordingly it was voted that the secretary be appointed a necrologist, to prepare suitable obituaries and have them printed in the society's annual report. Those who have died were William Endicott of Canton, David B. Hunt of Boston, Warren E. Eaton of Reading, O. H. Peck of Denver, Col. John Todd of Hingham, W. S. Appleton of Boston, Frank W. Andrews of Washington, D. C., Hon. Virgil C. Gilman of Nashua, N. H., and Albert H. Hews of North Cambridge.

Delegates to the national convention of the American Pomological Society, which will meet in Boston in September, were appointed, President Hadmen heading the list. Four new members were elected: Benjamin C. Marble, Manchester-by-the-Sea, John Lowell of Newton, Cyrus Alger Hawes of Boston and James A. Lowell of Chestnut Hill.

As dead as Chelsea may well be said since we have no license, but Tweed's Liniment is made in Chelsea, and we use a barrel of good old grain alcohol every week to make it of. We don't know how soon a search warrant will be issued, but we know that the police would not destroy our Liniment if they should sleep some. They think too much of it for sprains, cuts, burns and bruises, lame backs, split heads, rheumatism, neuralgia, sore feet and a lot of other ailments they have to contend with. Get 25-cent bottles of the druggists, or send direct to the Tweed Liniment Company, Chelsea, Mass.

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